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A METEOROLOGICAL CHRONOLOGY TO A.D. 1450

By C. E. BRITTON, B.Sc.

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A METEOROLOGICAL CHRONOLOGY TO A.D. 1450

§ 1—INTRODUCTION

A number of writers have made compilations of historical references to the weather of the British Islands. Probably the best known, although not the most extensive, of these works is that of E. J. Lowe which appeared in 1870 under the title " Natural Phenomena : and Chronology of the Seasons." It is little more than a list of events arranged in chronological order although details are occasionally given in amplification of the entries. The first of these compilations which is of any importance is that of Dr. Thomas Short of Sheffield who, in 1749, published in two volumes his " General Chronological History of the Air, Weather, Seasons, Meteors, etc." The preparation of this immense work occupied the ' indefatigable doctor ' for about fifteen years and it is certainly the most extensive research of its kind in any language. Its faults are as great as its merits and a discussion here of both the good and the bad aspects of the work will serve to give an outline of what has been attempted in the present chronology.

For a meteorological chronology to have its maximum value the attention of the compiler must be directed to two main points, dates and authorities. No events should be included as authentic that have not at least a *prima facie* claim to historicity, and the dates given for the events should be, as far as they can be ascertained, reliable. Both these desirable ends are served by careful citation of authorities and, where necessary, by discussion of the alternative datings given by the original writers and annalists who mention the events. It is here that the great weakness of Dr. Short's work is visible. He hardly ever cites an authority for his statements and he is frequently very light hearted in the matter of dates. In the result he gives us a vast compilation of events without any clue as to where and by whom the majority of them were recorded. Still more remarkable, there are numerous events mentioned, especially those purporting to happen in the first 1,000 years of the Christian era, which appear to have no foundation whatever in fact. Frosts, floods, droughts, storms and other phenomena appear of which it seems impossible to find any mention in history until they appear in Dr. Short's treatise. Very careful search has been made to find out some earlier source for such notices but they nearly all appear to be quite unknown to authorities in our national and county history. All such entries are probably quite fictitious and it would be very interesting to know where the doctor acquired this mass of unhistorical information. It is clear that had he taken the trouble to indicate the authorities for his statements the historicity or otherwise of all these events could have been critically discussed and much erroneous matter would have been kept out of later compilations.

Similar troubles arise over dates. Our early historians do not always concur among themselves as to the dates of events of major historical importance and it is, therefore, not surprising that meteorological occurrences are variously dated in the original writers. The mere uncritical copying of events from the histories has resulted in a vastly swollen list merely because the same event has appeared under slightly different dates in different historians. Such results occur again and again in Dr. Short's work. It is not uncommon to find the same occurrence scheduled as many as three times under different dates, sometimes with ludicrous results, as when a particular year is described in one paragraph as wet and in another as dry. Had original authorities been cited, the matter could have been straightened out, to a considerable extent at any rate. Noah Webster, the lexicographer, discovered this weakness when compiling his " History of Epidemics," and he says in a footnote, " No dependence can be placed on the dates of events found in Short on Air and I cannot vouch for their correctness where I have not other authority." Unfortunately some later compilers have used Short much less critically than Webster.

The difficulties do not end here. Subsequent workers have added to Short's notes the results of their own reading in sources which Short presumably left untouched. This has added further to the confusion with the result that special lists, such as Symons' Table of Droughts (*British Rainfall*, 1887), are grievously inflated because they have taken the earlier workers' results for granted. A further amount of duplication has been introduced on account of the variety of calendrical styles found in mediæval writers which comprise not only the ecclesiastical year but also regnal and mayoral years and even, as in the case of Murimuth, a year entirely of his own invention.

Again Short rarely takes the trouble to indicate whether the events he includes are domestic or foreign. Some of them have been traced to foreign chroniclers, such as Sigebertus Gemblacensis, and do not relate to this country at all. Incautious readers of his work have been misled in this respect.

Against these demerits must be offset the enormous sweep of Dr. Short's net. Apart from the more dubious material he secured a large amount of the historical matter and it became clear when the present chronology was being compiled that his researches must have extended to a large number of sources only known at that time in the original manuscripts. Whether he examined these sources *in propria persona* or called upon the note books of learned friends is not known and there is no clue in such MSS. of his that are now extant, but his labour in hunting up obscure sources must have been prodigious. In the chronology which follows all the events which Short has collected have been included for the sake of completeness whether these events are thought to be authentic or not. Where no other record of the event has been discovered some such phrase as " no record before Short " has been used but it should be understood that a large proportion of the authentic events are found in his compilation also.

Where Dr. Short's treatise becomes most valuable is in the seventeenth and eighteenth centuries. He includes copious extracts from his own and other weather diaries which have since been lost. He also gives details of a number of rainfall records which would now be unknown if they had not been preserved by him. His interests in meteorological chronology did not cease with the publication which has been discussed. He appended a briefer chronology to his important economic study, " A Comparative History of the Increase and Decrease of Mankind . . ." which covers the period 1468 to 1765. This compilation has the same defects as the major work and there are still some very incorrect dates. Even the date of the great storm of November, 1703, is incorrectly given on two occasions as October 26, 1703.

There are a number of later compilations which are less extensive than Short's but very few of them are really critical in character. A note of some of the more important of them will be found in the first section of the bibliography at the end of this volume.

In the chronology which follows, an endeavour has been made to clear up these uncertainties and inaccuracies and to distinguish the unhistorical entries in the older attempts from the authentic, and thus to place the subject upon a proper basis. The events are grouped in chronological order and are not divided into several sections each dealing with a particular type of phenomena. Where an event seems to be reasonably well attested historically it is briefly noted in a heading immediately following the date. Then the actual account given by the original historian is reproduced with a reference letter to indicate where the record can be found. When the event is mentioned by more than one original writer, the extracts given are, in general, those of the authors who were nearest in time to the event. The date to which the event is allocated must sometimes remain uncertain but every endeavour has been made by carefully comparing original writers to arrive at the correct result. Generally the variety of datings is discussed under the appropriate events. If the event is considered to be fictitious or of dubious historicity, no heading follows the date, but the earliest mention of the event is indicated and if it is thought of sufficient interest, some discussion of it is included. There is no special virtue in the date

1450 at which the chronology terminates. It was chosen arbitrarily but it probably represents a convenient end point as it coincides with the era of the invention of printing and the beginning of a definite expansion in the sources available for examination.

The present compiler must record the immense debt which he owes to the army of scholars who have made the MS. sources of our national history readily accessible to all readers. Without the excellent productions of the Rolls Series, the volumes published by the Royal Historical Society, and those of other learned bodies and individuals, this work could hardly have been undertaken. Most of the historical material is, of course, in Latin. Excellent translations of some of the more important historians have been published in such series as " Bohn's Antiquarian Library " and the " Church Historians of England " and extracts have been taken from these if the translation happened to come to hand before the original text. In all other cases the translation has been provided by the compiler. For texts in Anglo-Saxon, Irish, Welsh and Norse, the translations published with the texts by their editors have been used, reduced to English if the translation happens to be Latin as in the case, for example, of Dr. O'Conor's *Rerum Hibernicarum Scriptores*. The compiler has also translated the Norman-French texts and those dialect texts where it is thought that the meaning is likely to be obscure to a modern reader. In other cases the original dialect is reproduced as in the cases of Hector Boece and John Capgrave. It should be added that numerous extracts and records as to seasons of scarcity and abundance and to the prevalence of mortality or pestilence amongst animals and men have been omitted unless they also contain definitely meteorological observations. Their inclusion would have inflated the size of the chronology by about another twenty per cent.

At the end of the main work will be found bibliographies of the sources used. The first group deals with the more important of the published chronologies with a few notes upon their content. This list is not, of course, intended to be exhaustive. The second gives a list of the historical works which were perused in preparing the chronology. These are placed, in general, in alphabetical order of the authors' names with an obvious modification for the many anonymous productions. In both these groups the reference letters are inserted so that any entry in the main body of the work can be referred to its exact source with very little trouble. In each bibliography the reference letters are also in alphabetical order, the chronologies having a single letter and the sources, two letters.

There is also appended an index in which the chief recorded events are grouped under suitable headings such as droughts, floods, etc. In this index no dates have been entered unless it is thought that the relevant event is definitely historical.

In discussing changes of climate in the historical period one of the founts of the necessary material is the literary. It is hoped that the present work will help to make this part of the data more reliable. It cannot, of course, claim to be final in the sense that everything ascertainable has been included but it is hoped that very little of importance has been missed. Perhaps also some light will eventually be shed on the origin of many oft-quoted events, like the great frost of A.D. 220, the Thames floods of A.D. 9, *et hoc genus omne*. These continually appear in print but no one has ever vouchsafed any information as to who first placed them on record.

Every endeavour has been made to avoid errors but in a volume where such large numbers of references and extracts are included it would be unduly optimistic to assume that all of them have escaped detection. The compiler trusts that, at any rate, they are few in number.

§2—TRADITIONAL PERIOD

Events recorded in annals and histories as happening in Great Britain and Ireland before the Roman Invasion must be held to be very largely legendary. They were probably in the nature of oral traditions and although no doubt containing a substratum of historical truth, no reliance at all can be placed on the dates assigned to the events. For Britain the type of chronicle in mind here is the *Historia Britonum*

of Geoffrey of Monmouth. The history of the pre-roman kings of Britain contained in that remarkable work is almost entirely legendary and probably a good deal of the later parts of that history must fall into the same category. Similar records of the exploits of the ancient Irish kings are to be found in the Irish chronicles, notably in the valuable compilation due to the Four Masters. The events in this chronicle from the beginning of the world are carefully dated according to the Septuagint reckoning but the historical accuracy of these dates must be regarded as exceedingly problematical.

The earliest dated meteorological events are to be found in the Irish annals. Nearly all of them are concerned with eruptions of the Irish lakes: the dates given by the Four Masters are *Aetas Mundi* and are here converted into *ante Christum.*

B.C.

2668 Eruption of Lake Con and lake Techet this year. (Lake Techet, that is, lake O'Gara nowadays). BV,p.3

2667 Moreover, an eruption of lake Maesg this year. BV,p.3

2665 Laghlin, the son of Partholanus, died this year. Whilst his sepulchral monument was being built, there was an eruption of of Lake Laghlin in the domains of the sons of Uas, whence it was so named. Moreover, there was an eruption of lake Eachtra. BV,p.3

2654 A poisonous inundation of the sea upon the kingdom this year, whence seven lakes overflowed during the time of Partholanus, and therefore they were designated lake Cuan (that is, the lake of the Harbour, nowadays Strangford). BV,p.4

2341 In this year overflowed lake Arbreach and lake Annim in Midia. BV,p.5

1694 . . . . and these lakes erupted this year . . . (here follows a list of nine lakes). BV,p.18

1690 An eruption of Ethneus in the kingdom of the Nialls . . . BV,p.18

1629 Eruption of these nine lakes . . . (here follows a list of the nine lakes). BV,p.22

1544 In his reign three dark rivers of Ireland erupted, named Subna, Torannia, and Cullan. BV,p.24

1449 In the reign of the same Frachus there overflowed the three rivers Flaesc, Mand and Labrand, whereby he obtained his surname. BV,p.27

1031 Moreover in the time of Siorna there was an eruption of rivers . . . (here follows a list of five rivers). BV,p.37

506 Whilst his sepulchral monument was being built, there was an eruption of lake Melgius. . . . BV,p.54

Some of these traditional events possibly refer to phenomena of a type discussed by A. D. Delap and others in the *Scientific Proceedings of the Royal Dublin Society*, Vol. 20, No. 17.

A number of other events are recorded in the traditional period. They are again nearly all from Irish sources.

? Dureinge the saide ten yeares Raigne of the saide last Kinge Eochy mcEirke there was noe Raine in Ireland, notwithstanding there was aboundance of graine and fruite. BA,p.16

The date of this drought is very vague. It seems to be about 200 years before the Trojan War.

B.C.

? The eight sons of Gallo are reported to have met with severe storms in coming from Spain to Ireland :—Twathy de Danan, king of Ireland, used sorcery, and thereby did procure such tempest, stormes and continuall contrary winds, that Diuers of the principle of them as Donn, Ire, and fferanan, three of the Brothers, were lost & Drowned. . . . BA,p.25

BA dates these storms as about May 17, 1029, B.C., but another annalist, unfortunately, seems to place them about three centuries earlier.

1023 There was this year a huge snow with a vinous taste, from which Oill-finsneachta was so called. BV,p.38

See, however, under **665** B.C.

766 Rinvallus, sonne of Cunedagius, succeeded his father, in whose time it rained blood 3 daies. . . . FJ,p.10

This event is quoted by Stow. It is first recorded by Geoffrey of Monmouth in *Historia Britonum* (Lib. II, Cap. XVI).

697 How the men of Ybernia send to Spanȝe for Symon Brak to be thair king.

To schipburd syne than ar tha went but tary,
And throw the se thai set thair cours to cary,
The wynd was fair and thai salit rycht fast,
To Brigant toun. . . .

These events occurred, according to Boece,

Sex hundreth ȝeir nyntie and sevin beforne
Or Jesu Christ wes of the Virgin borne. . . . AM,I,p.26

According to BA, Simon Brack came to Ireland about 450 B.C.

665 Fineaghty his eldest sonn succeeded him, he was soe called of the aboundance of snow that fell in his time. BA,p.35

There seems to be confusion here as the next entry will show.

538 Rohaghty was the first king that ever used coaches wth 4 Horses in Ireland. He raigned 7 years and at last was burnt by wild fier at Dunsovarkie. Elim Olfinsneaghty was king for one yeare, he was soe called because it raigned snow continually that yeare. BA,p.36

These are the events that the Four Masters allocate to 1023 B.C. (*vide supra*).

272 Fergus macFerquhart died while crossing from Scotland into Ireland :—

To schip tha went, and syne set to the schoir,
The wynd blew up the langar ay the moir ;
Bayth tow and takill festnit wer all fast,
Within schort quhile ȝit war tha all agast.
Fra Eolus so loud he blew his horne
On thame all nycht lang to the tother morne,
In Yrland cost rycht darflie did thame dryve,
In at ane craig he made thame till arryve.
In all that schip chapit nather ald nor ȝing
Bot perreist all with gude Fergus thair king. . . . AM,I,p.41

71

With bark and barge, and mony gay gala,
To schipburd went syne efter on ane da.
Ryche souerlie tha salit for ane quhile,
In half ane da the space of threttie myle ;
Syne Eolus his bugill blew so loud,
That all the se with schouris he did schroud.

B.C.

Thair wes no thing bot harrok, how and cry,
Sum bad on luffe, and vther sum hald by ;
And sum bad how, and vther sum bad haill,
Sum bad on le, and vther sum strek saill ;
Sum with ane bub had blawin doun hir blind,
Sum with ane torss la capand on the wynd,
. . . . . .
Sic fersie flaggis fra the hevin did fall
Tha war in poynt that tyme to perische all. AM,I,p.124

§3—ROMAN PERIOD

As in the Traditional Period, there are numerous events described by the annalists and chroniclers which are of extremely dubious historicity. But we now meet with notices in the modern compilations of a great many meteorological events, alleged to have taken place in this period, which are not recorded at all by any contemporary writer. Indeed there are numerous events which appear on record for the first time in the XVIIIth century and it is very difficult to understand where the compilers obtained their information. It seems incredible that the accounts are pure invention, but it nevertheless remains a fact that the great bulk of these notices are without any known foundation whatever and the supposed events are quite unknown to authorities in our local history. The chief offender in this respect is Dr. Thomas Short (c.1690–1772). He seems to be the first person who ever heard of most of the meteorological events which he records as happening between A.D. 1 and A.D. 700. These notices have been included in this list for the sake of completeness. If no earlier reference can be cited, we must deem the supposed events to be very probably unhistorical.

B.C.

55 The first reference to weather in or around the British Isles which is definitely authentic is to be found in the account given by Julius Cæsar of his invasions of Britain. Cæsar's comments are as follows :
Before his landing : To the total stated, eighteen transports must be added, which were detained eight miles off by the wind and prevented from entering the port of concentration ; these he allotted to the cavalry.
During his landing (August 26) : These arrangements made, he caught a spell of fair weather for sailing. . . .

55 Afterwards (August 30) : Four days after the arrival in Britain the eighteen ships above-mentioned, which had embarked the cavalry, weighed anchor in a gentle breeze from the upper port. When they were nearing Britain, and in view of the camp, so fierce a storm suddenly arose that none of them could hold on its course ; some were carried back to the selfsame port whence they had started, others were driven away with great peril to themselves to the lower, that is, to the more westerly part of the Island. None the less, they cast anchor, but when they began to fill with the waves they were obliged to stand out to sea in a night of foul weather, and made for the continent. That same night as it chanced the moon was full . . . and at the same time, the storm was buffetting the transports which were made fast to anchors.
Later : He himself, taking advantage of a spell of fair weather, weighed anchor. . . .

These details are to be found in *De Bello Gallico*, Lib. IV, Cap 20–36 (H. J. Edwards' translation). The actual dates were computed by Edmund Halley in a well-known paper (*London Philos. Trans.* XVII, p.495).
Bede and the early native historians generally allocate this first invasion to 60 B.C.

B.C.

54 Cæsar also gives some incidental meteorological details in his commentary upon his second invasion a year later :
But about midnight the wind failed and he did not make the course. . . .
Troopers came from Quintus Atrius to Cæsar to report that a violent storm had arisen in the previous night, and that nearly all the ships had been damaged and cast up on the shore. . . . a complete calm ensued.
See *De Bello Gallico*, Lib. V, cap 1–31.

40 There was neither thunder nor storm in his reign. BV,p.65
The Irish monarch in question, Conarus, is reported to have reigned 70 years.

A.D.

4 A rain of blood in London for five hours. A,II,p.180
No mention previous to Short.

7 Floods in the Thames with heavy casualties. A,I,p.194
No mention previous to Short. Several later compilers refer to these floods and some date it in A.D. 9 probably following Luckombe (p. 162). Symons and Chatterton include it in their list of Thames floods (*London Quart. J. R. met. Soc., 21, 1895, p. 195*). Brooks and Glasspoole consider it to be a tidal flood. (R. pp. 76, 95.)

8 Damage at Pickering by lightning. A,II,p.182
No mention before Short.

9 Inundations of the Humber. A,II,p.194
No mention previous to Short. See also under A.D. 7.

14 Unfortunate weather occurred in Ireland during this reign. There was unfruitfulness of seed, for there was hardly any grain in the ear, there was no produce from the rivers, there was sterility of the herds, and a dearth of fruit, for there was scarcely an acorn on the oaks. BV,p.70
Carbreus Feliceps, the monarch referred to, had reigned 15 years at this date.

14 Inundations of the Severn with great damage. A,II,p.194
No mention before Short. Other compilers follow him. Southall includes it in his list of West Midlands floods. (*London, Quart. J. R. met. Soc., 21, 1895, p. 35.*)

15 Prosperous weather was in Ireland during this time. For there were tranquil honorable times, fertility in the fruits of the earth, fish in the rivers, abundance of milk from the cows, and the tree tops were drooping with the weight of fruit. BV,p.71
Contrast this, however, with the account given in A.D. 14.

18 Hurricane in which Westminster was destroyed. A,II,p.187
No mention before Short (or since !).

24 Caerleon destroyed by lightning. A,II,p.182
Only mentioned by Short.

29 Great floods in the Trent valley. A,II,p.194
No mention before Short.

? Eochie Oireaw, king of Ireland, " slaine and burnt by lightning fire from heaven ". BA,p.48
According to BA, this was about A.D. 30, but other sources (e.g. BV,) suggest a considerably earlier date.

33 Floods in the Dee : much damage at Chester. A,II,p.194
No mention before Short.

A.D.

37 Floods in the Medway, doing damage. A,II,p.194

No mention before Short.

40 Yet many of them Dyed of a lamentable Famine which happened in the Last Year of the Emperor, by Reason most of their Corn was spoil'd with mighty Raines, Haile, and a strange Lightening, accompanied with Prodigious Thunder, that not only Burnt and Destroyed the Corn, but many Houses; and Killed Numbers of People and Cattle. FD,p.14

The emperor in question is Caligula. The meteorological references are probably imaginary.

48 Excessive floods in the Thames valley: Casualties estimated at 10,000 ! A,II,pp.189, 195

No record before Short. Other compilers follow him. Symons and Chatterton include it in their list. (*London, Quart. J. R. met. Soc., 21, 1895, p. 195.*) Brooks and Glasspoole suggest that this flood might have been due to rainfall (R, p. 76).
Lord Desborough mentioned this flood on February 5, 1934 in an address to the Authors' Club. In correspondence with him upon the subject, it appeared that he quoted the event from Symons' list, but, after going to some trouble to look into the matter, he was unable to refer to any primitive authority for the occurrence of the flood.

c. **50** In this Emperours Reign there was so hard a Frost that all the Lakes and Rivers were Passible from the mindle (sic) of November to the beginning of April. FD,p.16

Seller allocates this to the reign of Claudius I. Unhistorical.

51 An appearance of three parhelia. A,II,p.176

Only mentioned by Short.

52 Winchester damaged by lightning. A,II,p.182

No mention before Short.

60 Edinburgh severely damaged by lightning. A,II,p.182

No mention before Short.

60 Great storm floods on the coasts of France and Britain. (Hennig, p.9.)

Hennig gives no authority for this record. Brooks and Glasspoole also cite the event, probably from Hennig. No original authority seems traceable. R.p.95

65 An inundation (or eruption) of a Lake of Monaghan beyond the region of Leth Muin, that is, Lough Neagh. . . . FQ,p.92

These traditional floods in the neighbourhood of Lough Neagh are referred to in a footnote to Connellan's edition of the Four Masters where the date is given as between 65 and 73.

67 Severe hurricane in England: 15,000 houses destroyed and many persons killed. A,II,p.187

No mention of this calamity by anybody except Short.

68 In his time Britain had Peace, yet a pressing Famine began, which lasted two Years, through exceeding Rains in Winter, and Droughts in Summer, so that many Thousands perished for want of Bread. FD,p.19

These apocryphal events are allocated to the reign of Galba so that 68 and 69 are probably the years intended.

68 Inundations on the South coasts in which the Isle of Wight was separated from Hampshire. A,II,p.194

This cataclysm does not appear to have been noticed by anyone until Short, and no one has reproduced this note except Walford ! K,p.22

69 Destruction of part of London by lightning. A,II,p.182

No mention before Short.

A.D.

c. **80** Syne winter come with woderis cuill and cold,
And frost and snaw wes hiddeous to behald,
With bitter blastis baith of wynd and weit,
With furius flaggis of scharpe haill and sleit ;
Sic crwell cald was nevir sene beforne
In Albione sen ony berne was borne ;
Quhairfoir all battell of tha bernis bald,
Ceissit in winter for that cruell cald. AM,I,p.363

Boece allocates this severe winter somewhere during Agricola's sojourn in Britain, that is, between 77 and about 84.
Polydore Vergil's account is more precise : But when sommer drewe towardes his uttermoste date, weapons for a while weare laide aside, bie reason of most noysom tempestes then fallinge ; and so the vj. yeare of his embassage browghte some quietnes. FV,p.80
This account would make the date about 83.
Cornelius Tacitus does not mention this exceptional winter in his *De Vita Agricolae.*

80 Floods in the Severn, many cattle drowned. A,II,p.195

No mention before Short. Other compilers follow him, including Hennig.

84 Severe damage at Canterbury by lightning. A,II,p.182

No record before Short.

c. **85** Boece gives a list of prodigies supposed to have been seen just before the departure from Britain of Julius Agricola. Amongst these is an account of a " battle in the air," a term frequently used by old writers for vivid auroral displays. Tacitus, however, is silent as to these phenomena in his *De Vita Agricolae.* AM,I,p.390

89 Rain of blood for three days together. A,II,p.180

No other mention of this except in Short.

94 Damage to Bangor by lightning. A,II,p.182

No record before Short.
Baker quotes Holinshed as referring to an aurora in this year and a rain of frogs in Scotland. There is no such account in Fordun or Boece. J,p.1

95 Very extensive floods in the Humber : 50 miles of country under water. A,II,pp.189, 195

No record before Short.

96 At his Death, a terrible Tempest and Earthquake happened, Flames ascended out of the Ground in Cornwal, and the Sea broak in on the Essex-Shoar, destroying many Villages, Towns, People and Cattel ; and Ebbing again, left many Monstrous Fishes on the Plains. FD,p.21

These floods and prodigies are associated with the death of Domitian and presumably are intended to date about September, 96. They appear to be quite imaginary. Short missed these events !

98 Damage by lightning at Camelon. A,II,p.182

Only mentioned by Short. There was a settlement of this name on the Scottish Roman Wall.

107 Heavy rain for 9 months : corn washed out of the ground. A,II,p.189

No notice previous to Short. In another place he says : " famine from heavy rains." A,II,p.202

111 Floods. See in 115.

111 Damage at Chester by lightning. A,II,p.183

No mention before Short.

112 Battles in the air (i.e., auroral appearances). A,II,p.175

No mention before Short.

A.D.

115 Floods in the Severn. A,II,p.195

First mentioned by Short. Walford follows him. Luckombe gives 111 or 115 as the date. Southall has it in his list of floods. (*London, Quart. J. R. met. Soc., 21, 1895, p. 35.*)

119 Auroral appearances. A,II,p.174

No reference before Short. In another place he says they were followed by famine. A,II,p.202

123 Floods. See in 125.

124 Severe hurricane at Winchester. A,II,p.187

No record before Short.

125 Floods in the Humber.

Apparently first noted by Luckombe (p. 163). Short refers to floods in 123 without mentioning any particular region. A,II,p.195

125 Heavy snows. A,II,p.189

No mention before Short.

128 Damage due to lightning. A,II,p.183

No mention before Short who refers to no particular locality.

130 A hailstorm with hailstones 12 inches in circumference. A,II,p.188

First mentioned by Short.

131 Marine inundations in Dorset. A,II,p.195

No reference before Short.

134 Thames frozen over for two months. A,II,p.198

This is the first of the dubious severe winters, although not so frequently quoted as that of 220. It appears to be mentioned for the first time by Short, and the later compilers, including Andrews and Watson, appear to follow him. (*London, Quart. J. R. met. Soc., 27, 1901, p. 147.*) No mention of it in Easton's list. M,p.9

139 Thames dried up for two days. A,II,p.179

Short seems to be the first and only person to hear of this remarkable drought.

153 Severe frost for nearly three months: rivers frozen including the Thames. A,II,p.198

No mention before Short. Other compilers follow him. Not in Easton's list.

155 Floods in the neighbourhood of Edinburgh. A,II,pp.189, 195

No record previous to Short.

159 Hurricane at Chester. A,II,p.187

Not recorded before Short.

164 Hurricane at Edinburgh. A,II,p.187

Not recorded before Short.

168 Great floods. A,II,p.195

No mention before Short, who gives 168 or 171. No locality named.

171 Floods. See in 168.

173 Frost for three months. A,II,p.198

First mentioned by Short. He refers to it several times in various terms. He says "heavy snow lay for 13 weeks," and "famine after heavy snows." Other compilers quote him.

202 Damage at Bath by a thunderstorm. A,II,p.183

No reference before Short.

A.D.

207 . . . and winter came to hand,
With frost and snaw that furious wes and fell,
With wynd and weit, and mony schouris snell,
With mist and roik, and als with mekle rane,
That force it was that tyme to leue the plane. AM,I, p.489

Boece has this passage just before the account of the arrival of Septimius Severus. It may possibly be merely a poetic account of wintry weather in general.
Short allocates "hail bigger than duck's eggs" to this year. No early writer mentions this phenomenon. A,II,p.188

212 Damage and casualties at Leicester by a thunderstorm. A,II,p.183
No notice before Short.

214 Trent overflowed for 20 miles on each side : many people drowned. A,II,p.195
No record before Short.

218 Floods in the Tweed : many people drowned. A,II, pp.189, 195
No mention before Short.

220 Severe frost lasting 5 months. A,II,p.198
This is one of the most frequently quoted of the early severe winters and is the first item in the lists of most of the compilers of these particular phenomena. It will be found in Hutton, Lowe, Andrews, Gutch, Walford and Watson. It is also in Easton's and Hennig's lists. Easton, however, can only cite Lowe as his authority. Thus the earliest reference appears to be that of Short. No original writer appears to record it.
The compiler of the present Chronology requested information by means of a letter in the *Quarterly Journal of the Royal Meteorological Society* as to the writer who first mentioned these early severe winters. No reply has been forthcoming.

224 Short refers to a very dark day in July in which artificial light had to be used. No authority is given for the event. There was no likely eclipse of the sun between May 207 and March 228. A,II,p.179

230 For a severe winter sometimes allocated to this year see under 250.

c. 230 In his time, Armies of Footmen and Horsemen were seen in the Air over London and divers others places, Fighting : together with great Blasts, Thunders and Lightenings, followed by mighty Storms of Hail and Tempestes, that did much Dammage. FD,p.25
Seller allocates these events to the reign of Alexander Severus, without specific year. They appear to be imaginary.

233 Seven months rain in Scotland with famine. A,II,p.189
No mention before Short.

234 Great Storm at Canterbury : 200 houses thrown down. A,II,p.187
No record previous to Short. Rowles includes it in his Kentish Chronologer but without citing any authority. Later compilers also include it. EW,p.83

242 Very heavy snows in and about Northants. A,II,p.189
No record previous to Short.

245 Several compilers, beginning with Short, refer to inundations in Lincolnshire. Some quote Camden as authority, but there appears to be no mention of these floods in *Britannia* (Gough's 1789 edition). A,II,p.195

249 At his coming to the Throne it Rained Blood in divers parts of this Kingdom, and a Terrible Bloody Sword was seen in the Air for Three Nights, a little after Sunset. FD,p.26
The emperor in question is Decius. These prodigies are probably imaginary.

A.D.

250 Severe winter: Thames frozen for nine weeks. A,II,p.198

All the compilers refer to this frost although the dates vary. Short, who appears to be the first to mention it, gives 252. Luckombe, Andrews, Gutch and Walford have 250. Lowe gives 230 or 250 and others follow him. Easton has it in his list, but only quotes an erroneous authority. Hennig gives 250—251 in his Katalog.

After considerable fruitless search for some early authority for this severe winter, we came across the first hint in Easton's list. For this particular case he has a footnote quoting as his authority the *Historia Ecclesiastica* of Eusebius. An examination of the chapter cited shewed no reference to this severe winter nor indeed is there any mention of British weather in the whole of that work. Later, when Hennig's *Katalog* was being examined this frost was found in it with two authorities cited, one modern and one ancient. The modern one referred to articles by M. G. Monica in the January, 1875, issues of a periodical *Happy Hours* which is long since defunct. These articles merely reproduce the list of severe winters usually given by compilers, obtained in this instance from Toone's "Chronological Historian" but without citing any original writer. But Hennig also adduces a primitive record, the "Chronicon" of Eusebius, an entirely different work to that mentioned by Easton. The edition of the Chronicon by St. Jerome printed in Migne's *Patrologiae*, Tomus XXVII, fails to substantiate Hennig's note, and, like the *Historia Ecclesiastica*, contains no record of British weather. It is very curious that there should be a tradition connecting this severe winter with Eusebius Pamphilus but it seems impossible at present to say how this tradition arose.

252 Severe winter. See in 250.

253 900 houses blown down in London. A,II,p.187

No mention before Short.

264 Hailstones fell exceeding 1 lb. in weight. A,II,p.188

No record of this prodigy before Short.

268 Damage at Winchester by lightning. A,II,p.183

No mention before Short.

268 Floods. See in 269.

269 Floods in the Humber. A,II,p.195

No record before Short. Another compiler gives 268, probably misquoting Short. K,p.22

277 Storm in London: several people killed. A,II,p.183

First mentioned by Short.

291 Most rivers in Britain frozen six weeks. A,II,p.198

Another of the early severe winters which appears in all the compilers' lists. A few of them give nine weeks as the duration and occasionally 290–291 as the date. Easton has it in his list with date 292 but can only quote Lowe and adds "date very uncertain." No original authority is cited by any of the compilers and Short appears to be the first to mention the event.

298 Great drought and famine in Wales. A,II,p.202

No record before Short. Symons quotes this drought from Walford (N, 1887, p. 24), who derives it from Short. Brooks and Glasspoole also allude to it, no doubt from Symons.

301 Storm at Winchester. A,II,p.187

No mention before Short.

305 Damage at Dumbarton by lightning. A,II,p.183

No record before Short.

317 Inundations in Thanet. A,II,p.195

Earliest reference is in Short.

323 Inundations on the Northumberland coast (Ferne Islands). K,p.22

No reference traced before Walford.

324 Six hours "rain of blood" in Somerset. A,II,p.180

No mention before Short.

A.D.

329 Most rivers frozen for six weeks. G,p.9

This severe winter is in most of the compilers. The earliest reference in this form seems to be in Lowe. Easton has it in his list quoting only Lowe but suggesting that there is confusion of date between 329 and 359. Short does not mention the frozen rivers but refers to very deep snows in Wales, citing no authority. A,II,p.189

330 Marine inundations in Lancashire. K,p.22

No record traced previous to Walford.

334 Large hailstones. See in 344.

336 Floods in the Tweed. A,II,p.190

No record before Short.

341 Snow 15 feet deep which lay 6 weeks. A,II,p.189

Only mentioned by Short.

343 Prolonged thunderstorms. A,II,p.183

Only mentioned by Short.

344 Severe hailstorm, with hailstones much bigger than hens' eggs. A,II,p.188

First noted by Short. Several compilers follow him. Probably the same event that Walford gives to 334 (hail like goose eggs). K,p.53

345 Heavy rains causing dearth. A,II,p.190

No record by any native historian. First appears in Short. According to Vanderlinden, however, Jean des Preis records incessant rain in Germany for 20 days in March 346. Possibly the original source of Short's note.

346 Four parhelia seen. A,II,p.176

No record before Short.

349 Severe gale : 420 houses blown down in Carlisle and many persons killed. A,II,p.187

First recorded by Short. Other compilers follow him.

350 Floods. See in 352.

352 Heavy floods in the Severn. A,II,p.195

No mention before Short. Included in Southall's list (*London, Quart. J. R. met. Soc., 21, 1895, p. 35*). Luckombe gives the date as 350. (p. 163.)

353 Floods. See in 358.

358 Great floods in Cheshire. A,II,p.195

No record before Short. Lowe gives it with date 353. G,p.9

359 Frost for 14 weeks in Scotland. A,II,p.198

Mentioned by most of the compilers. The earliest reference appears to be in Short. Easton can only quote Lowe for this event although he gives two references to severe weather in Europe in this winter, one ancient and one modern. Historicity as regards Scotland seems very doubtful. See also in 329.

361 Damage at Dumbarton by lightning. A,II,p.183

Only mentioned by Short.

362 Severe drought. A,II,p.200

First mentioned by Short. Symons quotes it from that source (N, 1887, p. 24).

367 Hailstorm on 2 Jul. A,II,p.184

Only mentioned by Short who does not say from whence he derived this very precise dating.

374 Drought and famine. A,II,p.200

First recorded by Short : Symons follows him.

387 Inundations of the Dee. A,II,p.190

No mention before Short.

A.D.

392 The celebrated incident of St. Ursula and the Ten Thousand Virgins is allocated by Matthew of Westminster to this year. In his account he states: And thus, sailing by the Thames river to the sea, a tempest suddenly arose and began to endanger them all, most of them being engulfed. DQ,p.76

Other hagiologists give widely varying dates to Ursula, ranging from 238 to 451.

415 Floods in the Dee; 40 families drowned.

First mention so far traced is in Luckombe (p. 163).

416 Storm: large part of Colchester destroyed and several people killed. A,II,p,183

First noted by Short.

418 Severe hailstorm. A,II,p.184

No mention before Short. He also refers to heavy snow in 418 or 421. In another place he allocates " aurorae and other meteors " to 418. See in 422. A,II,pp.173,189

419 Inundations of the sea near Southampton. A,II,p.195

No notice before Short. Probably unhistorical.

421 Heavy Snow. See in 418.

422

Syne at the last ane schour of haill full sone,
Als mark as midnicht fra the hevin discendit,
That baith the pairteis gritlie hes offendit.
In falt of licht micht nane ane vther se,
Bot drew abak and leit the battell be. AM,II,p.35

The legendary hailstorm thus described by Boece may be the source of the one alluded to by Short as in 418.

429 Dathias, the son of Fiachrius, obtained the kingdom of Ireland . . . for the space of 23 years, until his death by a stroke of lightning, and he was buried. . . . FQ,p.85

The accession of Dathias McFiachrius is placed by Tighernac in 406 so that his death would be about 429.

429 Bede gives an account of the journey of Germanus from Gaul to Britain to combat the Pelagian heresy. The bishop met with stormy weather which was attributed to the action of malevolent demons but he stilled the waves by sprinkling them with holy water. AJ,pp.26,27

Stow, however, seems to infer that Germanus had propitious winds.

436 Coloured rain. See in 442. FJ,p.49

436 A huge snow. CV,I,p.2

Presumably in Ireland only.

439 Several compilers refer to a famine in this year and some add that it was a year of drought. Walford appears to be the first compiler to mention a drought. Symons quotes it from him. (N, p. 24.) K,p.47

441 Inundations on the Welsh coast: many casualties. A,II,p.195

No record before Short.

442 " Rain of blood " in York. A,II,p.180

This is probably the incident allocated by Holinshed to 436.

443 Very deep snows. A,II,p.189

Only recorded by Short.

445 Before the Britons beat the Saxons, and the king of the Scots was slain, apparitions were seen in the air in England and burning spears at Rome. . . . CQ,p.9

Probably quite mythical.

A.D.

447 A day as dark as night. AP,p.3

The only eclipse of the sun visible in Wales in this year was that of December 23, but as it was by no means total in Wales it seems unlikely to be the event referred to. There was no total eclipse visible in Wales between those of April 16, 413 and May 28, 458.

§ 4—SAXON PERIOD

The Roman legions had left the shores of Britain by the middle of the fifth century, never to return, and Hengist and Horsa established themselves by about 450. There is still, as in the Roman Period, a considerable amount of legend clinging to the authentic parts of history and we again find a large number of meteorological events in the compilers to which scarcely any credence can be attached.

A.D.

c. **450** In that same tyme, richt sone and suddantly
Ane schour of haill discendit frome the sky
With so greit mirknes and obscuritie,
That neuir one ane vther than micht se ;
The Scottis than weill wist nocht in that caice,
Quhidder to byde or follow on the chace. AM,II,p.139

This semi-mythical battle between Hengist and the Picts and Scots is of very doubtful date. See a similar incident in Boece in A.D. 422.

454 Drought from July to September, followed by famine. K,p.47

No note of this traced prior to Walford.

454 Short allocates auroral appearances to this year. No earlier record found. A,II,p.173

458 Storm at York in which several houses were thrown down and several people killed. A,II,p.187

No record before Short.

459 Hailstones fell in most parts of Britain above 3 inches in diameter and killed many people and cattle. A,II,p.188

No mention before Short.

465 Great tempest with hail and rain according to Holinshed. J,p.2

470 Ten months rain in Scotland. A,II,p.190

No mention before Short.

474 Four months frost with great snow. A,II,pp.189, 199

First noted by Short. In another place he says " heavy snows lay 4 months in Wales." This severe winter is not so often noted in the compilers as some of the other early instances. Easton has it in his list but can only quote a single continental authority, namely Baronius. Easton labels it " date uncertain."

478 Great damage at Winchester by a thunderstorm. A,II,p.183

Only mentioned by Short.

479 Severe flooding in the Thames extending 10 miles above and 10 miles below London. A,II,p.195

First mentioned by Short. Included in Symons and Chatterton's list (*London, Quart. J. R. met. Soc., 21, 1895, p. 195*). There is also a note in the *Meteorological Magazine*, 63, 1928, p. 18.

480 Drought. K,p.47

Walford seems the first to note a drought in this year. Short refers to a famine in Scotland following a comet. Lowe mentions both famine and drought. Later compilers allocate a drought to this year. Possibly there is confusion here with another drought which some compilers place in 484 apparently upon the authority of Baronius. There appears to be no mention of Britain specifically in that reference. A,I,p.203

A.D.

484 Drought. See in 480.

487 Inundations of the Severn. A,II,p.195

No mention before Short. Other compilers follow him. It is in Southall's list (*London, Quart. J. R. met. Soc., 21, 1895, p. 35*). Not mentioned by any early historian.

492 Stamford burnt by lightning. A,II,p.183

No mention before Short.

493 Floods in Northern Ireland.
Four Masters: And the Ui-Neill and the Oirghialla came to a certain water and the river swelled against them so that they were not able to cross it in consequence of the greatness of the flood.

The river in question appears to be the Bann.

507 Fatal lightning. See in 508.

507 Severe winter. See in 508.

508 The death of Lughaidh, son of Laoghaire, king of Temhair, in the plain of the lightning: that is, fiery lightning from heaven fell upon him, after he had denied Patrick. FQ,p.127

Tighernac puts this in 508 but other chroniclers have 507 or 509. The Four Masters have 503 and add the following distich: FC,p.37 BA,p.74

A nAchadh farcha ughrach,
bas mhic Laogaire Lughach,
Gan molbhtha tall na sonn,
de do forcha trom teinnige BV,p.137

Dr. O'Donovan renders the verse thus:

At Achadh-farcha warlike
The death of Laeghaire's son, Lughaidh,
Without praise in heaven or here,
A heavy flash of lightning smote him.

508 Rivers frozen up for two months. A,II,p.199

Another of the dubious early frosts. The first mention appears to be in Short, who gives 507 although most later compilers favour 508 as the date. It is in nearly all the lists. Easton includes it under date 509 but can only quote Lowe.

509 Fatal lightning. See in 508.

c. **523** In his time strange sights were seen of Dragons, Lions and other furious wild Beasts Fighting in the Air. In the West of Kent it Rained Wheat, and soon after great Drops of Blood, upon which ensued extream Dearth. . . . FD,pp.48–9

Vaguely allocated to the reign of Octa (c. 513–533). Legendary.

524 Severe winter. See in 525.

525 Thames frozen for 6 weeks. A,II,p.199

First noted in Short. Other compilers follow him. Easton notes a severe winter in 524 as doubtful and can only quote a single reference, in which there is no mention of the Thames.

525 Floods in the Trent. A,II,p.195

No record before Short.

526 A dry fog. G,p.9

No reference traced earlier than Lowe. It is difficult to know quite what phenomenon is intended.

A.D.

529 Inundations in the Humber. A,II,p.195
No mention prior to Short.

530 Colchester damaged by a thunderstorm. A,II,p.183
No reference before Short.

535 Coloured rain. See in **540**.

536 Floods in the Tweed with heavy casualties. A,II,p.195
No reference before Short.

540 Battles in the Air (i.e. auroral appearances). A.II,p.175
The reference is probably to auroræ seen in France. Roger of Wendover has an account of this: In the year of grace 541, there appeared a comet in Gaul, so vast that the whole sky seemed on fire. In the same year there dropped real blood from the clouds . . . and a dreadful mortality ensued. ET,I,p.42
An aurora on such a grand scale visible in France was probably seen in this country also. Short quotes the alleged rain of blood as in 535. The mortality referred to was very extensive and is mentioned by Tighernac and other Irish chroniclers.

545 Intensely cold winter. G,p.9
Apparently first noted in this country by Lowe. Easton quotes several continental authorities for a severe winter about this time although none of them mention Britain. There appears to be possible confusion of dates between 545 and 554.

548 Storm in London, many houses thrown down and 250 persons killed. A,II,p.187
No mention before Short. Some other compilers give the date as 549.

549 Storm. See in 548.

550 Large hail like pullets' eggs fell in Scotland. A,II,p.188
No record before Short.

552 Violent rain in Scotland for 5 months. A,II,p.190
No note of this before Short.

554 In the year of grace 554 the winter was so severe with frost and snow that the birds and wild animals became so tame as to allow themselves to be taken by hand. ET,I,p.46
A number of other chroniclers besides Roger of Wendover have similar accounts to this. They all seem to derive from Sigebertus Gemblacensis who does not mention Britain specifically. Easton quotes a good many authorities for this rigorous winter but there seems to be considerable similarity between the accounts and those referring to 545.

555 In the year of grace 555 there was seen the appearance of lances in the north-west quarter of the heavens. ET,I,p.46
This account of an aurora is derived from Sigebert and may not apply to this country.

555 Severe thunderstorms all over Britain. A,II,p.183
No mention traced before Short.

562 Short refers to a number of phenomena in this year all of which seem to be devoid of historical foundation. He has an appearance of parhelia, an appearance which might refer to an aurora, and "a very dark day". A,II,p.179
The solar eclipse of October 3, 563 would appear to have been too small to occasion a notably dark day.

563 A great wind occurred. FS,p.24
Mentioned only in the Irish annals.

564 Great rain floods. A,II,p.195
No record before Short.

A.D.

565 In this year there were many signs both of the sun and moon. ET,I,p.48

Possibly this refers to the solar eclipse of February 16, 565. Roger of Wendover is again quoting Sigebert but this eclipse was visible in Britain.

566 Storms on the coasts of Kent, Sussex and Hants. A,II,p.187

No record before Short.

567 The same year were seen in the air fiery spears, portending the irruption of the Lombards into Italy. ET,I,p.48

This account is again from Sigebertus Gemblacensis. If the aurora was visible as far south as Italy it was probably seen here as well. Short includes this aurora as in 568.

Perhaps this is the original source of the mythical events which Howie allocates to 570: The fountains ran blood at York in England; the trees also seemed on fire at London. . . . CQ,p.9

568 Aurora. See in 567.

570 ? Aurora. See in 567.

575 Inundations in East Anglia. A,II,p.195

No mention before Short.

579 Heavy rains for 20 days together. A,II,p.190

No mention before Short.

579 ? Aurora. See in 580.

580 In the year of grace 580 fiery meteors were seen traversing the heavens. ET,I,p.50

This account derives from Sigebert. Probably an aurora but possibly meteoric showers. Short gives the date as 579. A,II,p.174

580 Inundations in Anglesea. A,II,p.195

First noted by Short.

586 Heavy snow. See in 588.

586 Great storm floods in the North Sea in May.

Noted by Hennig (p. 10) who quotes Okko. No British historian mentions this.

587 Frost. See in 588.

588 A huge snow. ED,p.67

Tighernac's date is 586 but his editor (Skene) considers 588 as the true date. O'Conor's edition of Tighernac has 588. There are variant dates in other Irish chronicles. The Annals of Clonmacnoise say in 587 "There was great frost this yeare" and in 588 "The same yeare there was much frost and winde." BA,pp.90, 91

589 . . . and the Sea breaking in near Hortle Pool in the Bishoprick of Durham swept away divers Villages, Drowning many People and cattle. FD,p.64

Probably quite mythical.

590 Famine following floods. A,II,pp.203 etc.

Possibly Short is quoting Sigebert. Vanderlinden, quoting Sigebert, says 590 was a wet year with floods. No note in any native historian.

Short also refers to a severe tempest of thunder, lightning and rain, and to auroræ on three nights in this year. A,II,pp.178,184

592 Drought from January 10 to September. A,II,p.203

No mention traced before Short.

596 . . . at which time divers terrible and amazing Sights appeared in the Air, of Armies in Rout, with great noises of Thunder and flashes of Lightening, many drops of the colour of Blood falling at the same time in divers parts of Surry. FD,p.56

Quite legendary.

A.D.

597 . . . immediately after his passing away, for, during these three days and nights of the obsequies, there arose a great tempest of wind without rain which effectually prevented anyone in a boat from crossing over the Sound hither from the other shore. (Adamnan : Life of St. Columba : edited by Huyshe, London, 1905, p.233.)

Columba died in Iona on April 27, 597 so that these storms over the Isles would be on April 28–30.

604 Four months frost in Scotland, followed by dearth : frost severe also in England. A,II,p.199

First mentioned in this form by Short. Easton quotes two authorities for a severe winter in 605, Cedren and Hermannus Contractus. Neither of these writers refer to England or Scotland.

605 Drought with scorching heat. A,II,p.200

First mentioned by Short. Other compilers, including Symons, follow him. Lowe gives 605 and 606. No original authority traced. H,p.21

608 The army of Ulidia was struck by terrible lightning in Barchi. FQ,p.181

This occurred at Mourne, County Down. Other sources give 610. FS,p.38

610 Fatal lightning. See in 608.

625 A dark year. FQ,p.187

Whether Tighernac means this literally or metaphorically is difficult to say.

625 Monganus, the son of Frachna of Lurgan, Abbat Arteriorum, was killed by a blow from a fiery thunderbolt. FQ,p.188

629 Snow 5 feet deep in Scotland, lay two weeks. A,II,p.189

No mention before Short.

c. 630 . . . and the Michaelmas following, a number of Porpoises came up the River ; whereupon great Storms followed and the Thames overflowing lay'd many Hundreds of Acres under Water in Kent and Surry. FD,p.59

Vaguely dated as during the reign of Sigesbert, king of the East Saxons. No account found in any early writer.

631 And so, as he was steering towards Armorica, a strong tempest arose on a sudden, which dispersed the ships of his companions, and in a short time left no two of them together. The pilot of the king's ship was seized with so great a fear, that, quitting the stern he left the vessel to the disposal of fortune : so that all that night it was tossed up and down in great danger by the raging waves. BZ,p.280

One of the very few meteorological " events " related by Geoffrey of Monmouth. King Cadwalla's stormy night in the English Channel is probably legendary.

632 Inundations in Munster. FQ,p.91

Walford refers to these floods but gives the date as 634.

634 A great snow caused the death of many in the country of Berg. FS,p.46

That is, in Ulster.

634 Floods. See in 632.

649 Inundations in Cheshire and Lancashire. A,II,p.195

First mentioned by Short.

655 The battle was fought near the river Vinwed which then, with the great rains, had not only filled its channel, but overflowed its banks, so that many more were drowned in the flight than destroyed by the sword. AJ,p.151

The date of this battle appears to be November 15, and the locality to be Yorkshire.

A.D.

655 Fire fell from heaven and great fear came upon men. GB,p.152

This account appears to derive from Sigebert.

655 And this shower (i.e. a marvellous rain) followed the others. FS,p.53

The Four Masters give no details of this wonderful rain.

661 A little before his Death, a Globe of Fire fell on St. Paul's Church, and Burnt the Roof of it. . . . FD,p.59

Probably mythical. Not noticed in any early writer.

664 Darkness on the kalends of May at the ninth hour, and in the same summer the sky was seen to burn. FQ,p.203

The date of the solar eclipse, May 1, 664, given by Tighernac is correct. His last note apparently signifies a very hot summer. The Annals of Clonmacnoise say, " . . . and the firmament seemed to burn the same summer with extream heat." This is probably the correct interpretation as pestilences were almost universal in 664 and 665. BA,p.106

c. 664 In proceeding by sea from Gaul to Britain with the bishop Wilfrid of blessed memory, with the clerks singing and with music to the praise of God on stringed instruments by the sailors in company, a mighty tempest and contrary winds sprang up in the midst of the sea, like unto that of the disciples of Jesus when sailing upon the sea of Galilee. Now by the hard blowing of the south-east wind, whitening the waves, they were thrown, how they knew not, upon the farthest part of the country of the South Saxons. (Eddius : Vita Wilfridi Episcopi : Rolls Series, p.19.)

Wilfred had been to France for consecration and Chad had been installed in the see of York when he returned. The date of this storm is thus sometime about 664. Other early lives of Wilfrid mention these events.

c. 668 About fourteen years ago, there was in these barren lands a very great, continuous & severe drought in the spring time . . . (Adamnan : Life of St. Columba, Lib. II, c.XLIV.)

Adamnan appears to have written this work between 679 and 683, so that the drought he refers to was between say 665 and 669. The drought was broken up by the merits of the saint. On the day the relics were exposed " . . . the sky, bare of clouds during the past months, March, namely, and April, was with marvellous rapidity overspread with them, suddenly rising up from the sea, and a great rain fell continuously day and night. . . ." (op. cit.)
Short refers to a severe famine in Scotland in 667, perhaps connected with these events. A,II,p.203

669 25 houses destroyed by lightning in the Bishoprick. A,II,p.183

No reference before Short. Presumably he intends to refer to the see of York.

669 Inundations in the Medway. A,II,p.195

No record before Short.

670 Snow killed much cattle. FQ,p.207

This note of Tighernac's is the only record leading us to suppose there was a severe winter in these islands in this year. Short allocates a severe winter to 670 but definitely quotes Cedren, whose record refers to Constantinople. Other compilers follow Short. Seller, as usual, amplifies on his own account : Soon after so great a Frost happened, That loaded Carts went over the principal Rivers, as securely as if it had been on dry Land. A,1,p.76 FD,p.86

671 Severe tempests with casualties. A,II,p.184

Unrecorded before Short.

A.D.

674 In this year a thin and tremulous cloud, a kind of rainbow, appeared at the fourth watch of the night on the fifth day before Easter, proceeding from the east, and turned into the colour of blood. FQ,p.208

If 674 is the correct year the time was about 3 a.m. on March 28. Other chroniclers mention that " the moon was turned into blood " and vary the year slightly. This phrase usually indicates in the old writers an eclipse of the moon but there was no total eclipse shortly before Easter round about this year. More probably an aurora is meant. FC,p.103 BA,p.108

Short says aurora appeared in March and October of this year but adduces no authority as usual. A,II,p.179

675 Severe frost. A,II,p.199

Mentioned only by Short. Almost certainly an error for 695.

c. 678 Drought. See in 681.

679 On being expelled his bishopric, Wilfred proceeded to Rome to lay the case of his expulsion before Pope Agatho : but as soon as he had embarked, he was driven by the west wind to Frisia. . . . BS,p.27

Hence Wilfrid's celebrated mission to the Frisians.

679 And Coldingham was burnt by divine fire. AC,p.33

Bede makes it clear that this conflagration was due, not to lightning, but to negligence. He devotes a whole chapter to the incident. AJ,p.220

681 This is the probable year of the celebrated St. Wilfrid's drought in Sussex. All accounts of this event derive from Bede. His note on the subject is : But Bishop Wilfrid, by preaching to them, not only delivered them from the misery of perpetual damnation, but also from an inexpressible calamity of temporal death, for no rain had fallen in that province in three years before his arrival, whereupon a dreadful famine ensued, which cruelly destroyed the people. In short, it is reported that, very often, forty or fifty men, being spent with want, would go together to some precipice, or to the sea shore, and there, hand in hand, perish by the fall, or be swallowed up by the waves. But on the very day on which the nation received the baptism of faith, there fell a soft but plentiful rain ; the earth revived again, and the verdure being restored to the fields, the season was pleasant and fruitful. AJ,pp.194–5

Some later writers refer to this drought in connexion with a comet. The dates given in various chronicles differ slightly. Symons quotes droughts in 678, 680-2, and 676-8, all referring without doubt to this particular case. It is noteworthy that the earliest life of Wilfrid, by his zealous partisan, Eddius, makes no mention of this drought in connexion with the conversion of the South Saxons, although he relates a series of other miracles performed by Wilfrid. Probably the proper conclusion is that about 681 there was a dry year in the south of England.

684 A great frost this year, so that the lakes and rivers of Ireland were frozen, and, moreover, the sea between Ireland and Scotland was frozen so that journeys were made to and fro on the ice. BV,p.231

This exceptional winter is only noted in this particular chronicle. No notice of a rigorous winter about this date is in Easton or the other compilers. But see in 695 which seems more likely to be the true date.

684 Coloured rain. See in 685.

685 A great wind and earthquake in the island of Ireland. FQ,p.213

Some other chroniclers give 684. Walford refers to inundations in Ireland in this year but there does not appear to be any record of floods in the sources. K,p.23

A.D.

685 In this year there was bloody rain in Britain and milk and butter were turned into blood. AC,p.34

There were notable outbursts of activity of Vesuvius and Etna about this time and the discoloured rain referred to probably contained volcanic dust from those sources. Both Scottish and Irish chroniclers allude more or less obliquely to similar events about this date. Tighernac in 684 records "Lough Neagh was changed into the colour of blood". Fordun says "bloody rain fell for seven days in Scotland as well as in Britain". The actual dates given vary from 684 to 689 in the different sources. Some chroniclers repeat the incident later under dates about 693. FQ,p.213 BT,p.219

Short gives 685 and 688 and Hennig follows him in the latter date.

688 Coloured rain. See in 685.

690 The moon was turned into blood. AP,p.8

The two total eclipses of the moon in 690, May 28, and November 22, were both visible in Wales. Tighernac has a similar note in 692 but he adds a particular date, November 11, which makes it likely that the eclipse of November 22, 690 is the one intended.

690 Gale. See in 691.

691 A great wind on September 16 in which six of the families on Iona were overwhelmed. ED,p.352

Other MS. gives 690 as the year.

693 An inundation of rain in Leinster, so that the rivers were in flood thereafter for three days and three nights. FQ,p.217

695 The Thames was frozen for six weeks and booths were built upon it. A,II,p.199

Apparently first noted by Short. Easton only adduces one primitive authority, Paulus Diaconus, for a severe winter in this year. The reference relates to western Europe and certainly contains no allusion to a frost fair on the Thames. *Chronicon Scotorum* has this account in 696: Great frost in this year, so that the lakes and rivers of Erinn were frozen over, and the sea between Erinn and Alba was frozen to such an extent that people used to travel to and fro on the ice. FC,p.113 This wording is practically identical with that used by the Four Masters in describing a frost under date 684. There is a possibility that a severe winter was felt in the British Isles but the frost fair on the Thames seems quite devoid of historicity.

696 Severe frost. See in 695.

697 In Scotland it rained blood. J,p.4

714 A great drought. FQ,p.227

Another authority gives 713. Symons, and Brooks and Glasspoole include this Irish drought under the latter date. FS,p.74

715 In his Second Year on Midsummer day at Sunseting, dark Clouds overspread the Skies, and then withdrawing, the Element seemed to be on Fire; after that, many fearful sights appeared in the Air, of Armies and Monsterous Creatures; upon which followed so great a Storm, that many Ships were broken to pieces in the Havens, mighty Oaks rent up, and Houses overturned. FD,p.86

Probably quite mythical.

c. 715 It rained a shower of honey upon Othan Bec, a shower of silver upon Otham Mor, and a shower of blood upon the Foss of Laighen; and hence Niall Frosach, son of Fergal, is named, for at that time he was born. FQ,p.230

Several chroniclers mention these prodigies about the time of the birth of Niall the Showery but the dates vary by one or two years. See in 759.

718 A dry summer. FS,p.76

This is probably the same event as recorded by other annalists as about 714 (q.v.).

A.D.

719 Wet summer. See in 720.

719 " Fiery hail burnt the ships, the sea boiling up." A,II,p.188
Short, unfortunately, does not give us the source of this alarming catastrophe.

720 A wet summer . . . a great maritime storm in October. FQ,p.231
The Ulster Annals have 719. FS,p.76

721 A very hot summer. AP,p.9
Another Welsh chronicle puts this in 720. AS,p.5

730 Inundations at Edinburgh doing great damage. A,II,p.190
No mention before Short.

735 A large fireball was seen at the end of autumn, with great thunder after it. FQ,p.240

737 Too much drought rendered the land unfruitful. AJ,p.300

738 Inundations at Glasgow in which 400 families were drowned. A,II,p.195
Short notes this on the authority of Fordun but it does not appear to be mentioned by the latter writer. It is of dubious historicity. Many later compilers note these floods, one of whom gives the date 758 in error.

741 A great drought happened in the country. AJ.p.300

743 Aurora. See in 745.

743 A great drought and earthquake. A,II,p.200
No mention before Short. Of doubtful application to this country.

744 A fall of ashes. A,II,p.180
Not mentioned by any native writer before Short.

745 Fiery strokes were beheld in the air, such as no men of that generation had ever seen before and were visible throughout almost all the night of the first of January. FG,p.447
Simeon of Durham appears to be the first native writer to mention this aurora. Tighernac, writing in Ireland a century later, is evidently alluding to it, as he has in 745 " In the night a marvellous and dreadful sign was seen in the stars ". Some later English and Irish writers date it 743. This event appears in Seller as " great flashes of fire rising out of the Earth ". FQ,p.246 FD,p.61
There seems to have been other notable aurorae about this time. Tighernac has in 746 " Dragons were seen in the heavens " and in 748 " Ships were seen in the air with their men ". In Fritz' list of dates of notable auroral activity all the years 740 to 745 are included. (*Washington, D. C., Mon. Weath. Rev.*, 56, 1928, p. 403.) FQ,pp.247,249

746 Aurora. See in 745.

748 An unusually great snow so that nearly all the herds were destroyed in Ireland and afterwards a noteworthy drought occurred in the world. FQ,p.248
Other annalists give this as in 744 or 747. Lowe lists droughts in Ireland in all three years. H,p.22

748 Aurora. See in 745.

749 A great wind. ED,p.76
The Ulster annals add that it was destructive in Iona. ED,p.358

758 Floods at Glasgow. See in 738.

758 A rainy summer. FS,p.99

A.D.

759 Three showers fell in the Kingdom of Muredach in Inis-eogain, that is, a shower of silver, a shower of wheat and a shower of honey, concerning which the Poet sings:

Tri frossa Aird uillinne,
ar ghradh De do nimh,
Fross argaitt, fross tuirinne,
agus fross do mil. FS,p.279

O'Donovan's version of this distich is:

Three showers at Ard-Uilline
fell through God's love from heaven:
A shower of silver, a shower of wheat,
and a shower of honey.

The Clonmacnoise Annals give a much more picturesque version. They add the necessary detail to give an air of verisimilitude to an otherwise bald and unconvincing narrative. It is as follows:—

There was Great famine throughout all the kingdome in the beginning of his raigne, In soe much that the K. himself had very little to live upon, & being then accompanied with seven godly Bishops, fell upon their knees, where the king very pitifully before them all besaught God of his Infinite Grace & Mercy, if his wrath otherwise could not be appeased, Before he saw the Destruction of so many thousands of his subjects & friends that then were helpless of releefe, & Reday to Perrish, to take him to himself, otherwise to send him & them some Releefe for maintenance of his service, which request was noe sooner made than a Great shower of Silver fell from heaven, whereat the K. Greatly Rejoyced, and yett (said he) This is not the thing that can Deliuer us from this famine & eminent Danger, with that he fell to his Prayers againe; and then a second shower of heavenly honey fell, & then the K. said with Great thanksgiving as before, wth that y^{e} third shower fell of pure wheat, which covered all the fields over that like was never seen before, soe that there was such plenty & aboundance of wheat, that it was thought y^{t} it was able to maintaine many kingdomes. Then the K. & the seven Bushopes gave great thanks to the Lord. BA,p.121

The king in question is the same Niall as the one mentioned (c. 715) in connexion with some other prodigious showers. The Ulster annals give 763 as the date.

c. 759 About the year of Christ 759 the Town of Doncaster was burnt by fire from heaven. AW,p.156

No record of this can be traced earlier than the one of Childrey's quoted. Historicity very dubious.

761 Severe winter. See in 763–4.

762 Heavy snows. See in 763–4.

762 Drought. See in 764.

763 Hot summer. See in 764.

763 Prodigious Showers. See in 759.

763–764 In the third year from this, that is to say, in 764, there was a great snow with intense frost, not to be compared with any in former ages. It covered the earth from the beginning of winter almost until the middle of spring, and through its rigours the trees and vegetables mostly withered away and many marine animals were found dead. ES,I,p.6

A.D.

The Anglo-Saxon Chronicle gives the date as 761 and Florence of Worcester follows this. Simeon of Durham and Roger de Hoveden give 764.
This was undoubtedly one of the severest winters known to history. Easton quotes many authorities shewing that the rigorous weather extended over the whole of Europe. Dates vary slightly but 763–4 seems to be the winter intended. Some later compilers give precise dates, as in Lowe and Baker (October 1 to February 26) probably deriving from Stow, who is quoting them from continental sources. Stow, however, definitely refers to a solar eclipse in the June following the frost. If correct, this must be that of June 4, 764 and it fixes the date of the frost as 763–4. FJ,p.67
The Irish Annals mention heavy snows about this time. Tighernac notes a great snow in 762 and " a huge snow for nearly three months " in 764, the latter entry, no doubt, referring to the severe winter described above. FQ,p.257

764 Tighernac states that the great snows were followed by " a great drought beyond measure ". FQ,p.257

Perhaps this is the source of the " long and terrible drought with heat " mentioned by Short as in 762 and the " hot summer with drought " given by Lowe in 763. Symons gives 764 in his list (N, p. 25) and Brooks and Glasspoole give the whole period 762–4 as one of drought (R, p. 150). None of the British historians appear to mention this drought. A,II,p.200

765 In the year 765, fiery strokes appeared in the air. . . ES,I,p.8

Also mentioned by Tighernac.

c. 766 What portends that shower of blood which in the time of Lent, in the city of York, the capital of the whole kingdom, we saw tremendously falling on the northern side of the building from the summit of the roof though the weather was fair ? GD,p.67

William of Malmesbury is quoting from one of Alcuin's letters. Perhaps Short is alluding to this in allocating a rain of blood to this year. A,II,p.180

767 Severe thunderstorms. See in 771.

c. 771 At the fair in Lammcomartha there was lightning and thunder on September 29, resembling that of the day of judgment. FS,p.103

The Four Masters give 767 as the date.

772 An unusual drought and heat of the sun so that nearly all the bread was lost. FS,p.104

A number of compilers refer to a drought in Ireland at this date. It is possible that this is the same drought that Tighernac puts in 764.

772 Short refers to a notable storm in Wales and Luckombe to one in Wells in this year. Both are probably unhistorical. A,II,p.183

773 In this year a red cross appeared in the heavens after sunset. AC,p.45

Several early writers mention this aurora with dates varying from 773 to 776. BM,p.18
CO,p.135

774–775 A number of writers, of whom the first appears to be Short, refer to a drought in 775 following a frost. This is almost certainly an error for 765. Easton does not mention any rigorous winter between 768 and 786. The drought dated 774 or 775 would thus be an error for that of 764 (q.v.). Short's reference in 775 to snow lying to a depth of 30 cubits obviously refers to the winter of 763–4, unless he is quoting some continental account. R.p.150

776 " Windy floods " in summer, that is, great flooding showers and a great wind. FS,p.106

776 Aurora. See in 773.

778 A very great wind at the end of autumn. FS,p.108

778 Severe thunderstorm. See in 782.

779 A great snow in April. FS,p.109

781 A severe storm at Coventry. A,II,p.188

No mention before Short.

A.D.

782 Dreadful lightning and thunder the whole night of Saturday the 2nd August, and a great and most mighty wind which destroyed the monastery of Cluain Bronaig. FS,p.110

August 2 was a Friday in 782, but a Saturday in 783. Possibly *nocte Sabbati* may be used in the sense of *nocte festæ*, that is, the "eve" or day preceding. The Four Masters give 778 as the date but do not give the day or the month.

782 Three paraselenae seen. A,II,p.176

No mention before Short.

785 A very great wind in January. Floods in Dairain. A dreadful vision seen at Clonmacnoise. FS,p.112

c. 787 A number of writers allude to a rain of blood about this time. They appear to be quoting Sigebertus Gemblacensis. Probably this is the phenomenon alluded to by Short as "followed by a Danish invasion". Curiously enough he uses identical words to describe a phenomenon in 867. Or he may be alluding to the aurora of 793. A,I,p.83

788 A great snow on April 29. FS,p.113

793 Very remarkable auroræ were seen in this year as the following accounts will shew :—

In this year dire forewarnings came over the land of the Northumbrians, and miserably terrified the people: these were excessive whirlwinds and lightnings, and fiery dragons were seen flying in the air. A great famine soon followed these tokens. AC,p.48

In the year 793, being the fourth year of the reign of king Ethelred, dreadful prodigies alarmed the wretched nation of the English, for terrific lightnings, and dragons in the air, and strokes of fire were seen hovering on high and shooting to and fro; which were ominous signs of the great famine. . . . ES,I,p.13

In the tenth year of king Brithric, there were seen fiery dragons flying through the air which tokens were followed by two plagues; first, a dreadful famine, and then the pagan nations coming from Norway and Denmark. ES,I,p.29

In this time of which I am speaking, there appeared signs in the country. First they were red, such as no man living had seen before; then spreading, they became as scarlet, and seemed near the earth. Then came great whirlwinds; then fiery flying dragons. And no one knew how to explain the storms and lightnings which men saw; some said that in their opinion they signified dear times: they did not speak a great untruth. BY,p.754

Fiery dragons is a usual term in early writers for phenomena which are clearly aurorae boreales.

794 And the heathens ravaged among the Northumbrians, and plundered Ecgferth's monastery at Donemouth; and there one of their leaders was slain, and also some of their ships were wrecked by a tempest. . . . AC,p.49

The place mentioned is now Wearmouth.

796 In the same year small globes were seen about the sun. ET,I,p.166

This appears to be the first authentic note of parhelic phenomena.

798 A great snow in which many men and animals perished. FS,p.119

798 The sun was darkened for 17 days. EH,p.129

Ralph of Diss gets this from Sigebert. Whether it means that there were persistently overcast skies for 17 days or is a distorted allusion to the small solar eclipse of February 20, 798 appears impossible to determine. Short amplifies it into "sun darkened 17 days in England". He also gives an identical note in 987, having got his figures transposed in some way. A,I,p.84

A.D.

798 The tempest of Laincomartha on the 29th September. . . . FS,p.119

This appears to be the same event as already recorded in these annals in 771.

799 In the year 799, in the British seas, a very great number of ships were tossed and wrecked, or dashed against each other, and sunk, together with a vast multitude of men. ES,I,p.17

§ 5—NINTH CENTURY

Notices of meteorological events now occur of sufficient detail and reliability to allow of a slightly amplified form of annotation. A heading is introduced summarising the phenomena described and the name of the authority is generally given at large. The precise location of the quotation is given, as previously, in the margin.

A.D.

800 **Wet summer** in Ireland.
Annals of Ulster: A wet summer. FS,p.120

800 A reference to a sharp frost in July by Radulphus de Diceto appears to be quoted from Sigebertus and probably has no domestic application. EH,p.129

800 **Gale** on December 24.
Simeon of Durham: Also, in this year, on the day before the Nativity of our Lord, the ninth of the kalends of January, a great wind arising from the south-west or west, by its indescribable violence destroyed and threw to the ground cities, many houses and numerous villas, in divers places; innumerable trees also were torn up by the roots and thrown to the earth. In this year an inundation of the sea burst beyond its bounds, not fulfilling what the psalm says, " Thou has set them their bounds which they shall not pass ". A great destruction of cattle occurred in divers places. FG,p.462

Some later writers date this December 23.

804 **Severe thunderstorm** on March 17 in County Clare.
Chronicon Scotorum: Very great thunder, and wind, and lightning on the day of Patrick's festival which killed very many people, viz., one thousand and ten men, in the district of Corco-Baiscim. FC,p.125

Other annals give slightly variant dates. BA,pp.128-9

805 Short refers to " hailstones like hens' eggs in south Wales ". No previous reference traced. A,II,p.188

805 **Lunar halo** on June 4.
Anglo-Saxon Chronicle: Also in this same year on the second of the Nones of June, a sign of the cross appeared in the moon, one Wednesday, at dawn. AC,p.52

This is dated 806 in the chronicle but June 4 was a Thursday in that year. It was Wednesday in 805.

805 **Solar halo** on August 30.
Anglo Saxon Chronicle: And again on the third of the Kalends of September, a wonderful circle appeared about the sun. AC,p.52

806 Some compilers allocate a very severe winter to this year. There are no references in Easton's list to any reports of severe weather about this time. G,p.10

808 **Damage by lightning** in Ireland.
Annals of Ulster: Fire from heaven struck the wine at the oratory of Nodan. FS,p.196

811 **Damage by lightning** at Dyganwy.
Brut y Tywysogion: And Dyganwy was burnt by lightning. AS,p.11

Annales Cambriae put this in 812.

A.D.

812 Short mentions an appearance of two parhelia in this year. No earlier notice has been traced. Probably unhistorical. A,II,p.176

812 Severe lightning. See in 811.

813 **Great thunderstorms** in Ireland.
Annals of Ulster: Great displays of lightning, and serious pestilences. FS,p.199

813 Alfred of Beverley has an account of meteors almost identical with those cited in 793. The account should be dated to that year. AB,p.99

813 Short says "Severn overflows with many casualties". A,II,p.195
This flood is in Southall's list. No record before Short.

814 Severe thunderstorms. See in 815.

815 **Severe thunderstorms** in Wales.
Brut y Tywysogion: There was a great thunderstorm which caused many conflagrations. AS,p.11
Annales Cambriae date this in 814.

815 **Gale** in Ireland on November 1.
Annals of Ulster: A great wind on the Kalends of November. FS,p.200

817 ? **Severe Winter** in Ireland from December 25 to February 22.
Annals of Ulster: A marvellous frost and great snow persisted from about Christmas to Quinquagesima. The bogs were crossed dryshod and many rivers and lakes in the same way. There were domestic and wild animals upon Lake Each. Stags were taken without being hunted. Much material and parts of houses were carried across lake Erne out of Connaught into the kingdom of the children of Crimthanus and into other unknown parts over the ice and there were hailstorms in this year. FS,p.201
No other annalists record a severe winter in this year. There is no indication of one in Easton's list. Probably the account refers to the winter of 821–2. The Ulster Annals note the severe weather in 821 also, and their account is not dissimilar to the beginning of the record quoted above.

821–822 **Severe winter,** notably in Ireland.
Chronicon Scotorum: Great frost, so that the seas and lakes were frozen, that horses and burdens were conveyed across them. FC,p.131
Annals of Ulster: A wonderful frost froze the seas, lakes and rivers, so that herds, horses and flocks were led across them. . . . FS,p.203
Short refers to heavy snows in 823 on the authority of Roger de Hoveden but there appears to be no mention of them in the works of that writer. Other compilers get their details from continental sources. Short refers in 821 to "a great frost after 2 or 3 weeks rain" probably deriving from the *Eginhardi Annales*. In another place he notices it as "after 2 or 3 years rain". A,I,p.85 A,II,p.199
See Easton's list for quotations from continental historians.

822 Lightning. See in 823.

822–823 Some compilers note a drought and dearth in these two years. The citation is apparently from Justus Lipsius and may not apply to Britain. H,p.22 R,p.151
Chronicon Fani Sancti Neoti records in 822 a severe famine but says nothing about drought. No native writer appears to allude to droughts in these two years. FB,p.154

823 **Lightning** damage at Armagh.
Chronicon Scotorum: Fire from heaven fell on the Abbat's mansion in Armagh, so that it was burnt. FC,p.133
Annals of Ulster give this as in 822.

823 Heavy snow. See 821–2.

825 A rain of wheat and grain is mentioned by Short in this year but it seems devoid of historical foundation. A,II,p.180

A.D.

827 The Thames frozen for nine weeks.
Short seems to be the first to note this and he is followed by many compilers. Easton can only cite Lowe.

829 Severe gales during this year are mentioned by Short. No historical record of these traceable. A,II,pp.184,188

830 Short refers to severe thunderstorms in Wales. No earlier record found. A,II,p.183

834 Inundations of the Tweed with great damage are noted in this year by Short and later compilers, some of whom give the date 836. No earlier record found. A,II,p.196

841 The hailstorm and whirlwind referred to by Short in this year appear to be unhistorical. A,II,p.184

847 **Heavy snow** in Ireland on February 1.
Annals of Ulster: A great snow on the Kalends of February. FS,p.218
This is possibly the source of Short's reference to a severe frost in 847.

851 **? Severe Winter.**
Ingulph: . . . through the sudden and excessive cold of a very inclement winter, against which no coverings of cloth were proof. CT,pp.33–4
Of very dubious historicity.

854 **Heavy snows** in Ireland in April.
Annals of Ulster: Snow until *cincturam viri*, the ninth of the Kalends of May. FS,p.222
See also in 855–6.

855 A whirlwind with hail and thunder is noted by Short, but he is apparently quoting from Sigebertus. A,II,p.184

855–856 **Severe winter** in Ireland and Scotland.
Chronicum Scotorum: Great ice and frost so that the principal lakes and principal rivers of Erinn were passable to pedestrians and horse-riders from the ninth of the Kalends of December to the 7th of the Ides of January. FC,p.155
Fordun: In his second year frost began throughout nearly all Europe on the second of the Kalends of December and ended on the Nones of April. BT,p.158
The Irish chronicle dates are November 23, 856 to January 7, 857. The Scottish writer refers to the second year of Donald which would probably make his dates November 30, 855 to April 5, 856. Other Irish annals have 855 and 854. Easton has notes of a rigorous winter under 856. The date is not easy to determine but probably 855–6 is about right. See also in 859–60. The Irish writers agree that the year following the frost was very tempestuous. FS,p.222

856 **Gales** in Ireland.
Annals of Ulster: A very great wind, so that it blew down woods, and laid waste the isles in the lakes. FS,p.223

856 Short mentions great rains and floods. No previous record traced. A,II,p.196

857 **Lightning** damage at Teltown, Ireland.
Chronicon Scotorum: Three persons were burnt at Taillten by lightning. FC,p.155
Other annalists vary the date a little.

857 **Wet autumn** in Ireland.
Annals of Ulster: A wet autumn and ruinous to the crops. FS,p.224

A.D.

c. **859–860** **Severe winter** in England.
Chronicon Fani Sancti Neoti: This year it began to freeze on the 11th of the kalends of December and ended on the Nones of April. FB,p.158
Chronicle of Winchester has a similar note but the commencing date is the 2nd of the Kalends of December. GJ,p.389
These notices resemble very much those of the Irish writers under 855–6 and possibly refer to the same occasion. Easton, however, gives many notices of a very severe winter in 859–60 over nearly the whole of Europe, so that the records quoted here may perhaps refer to a different occasion from those of 855–6.

861 Inundations in the Medway. A,II,p.196
There are no allusions to this before Short.

c. 861 Seller gives an account of very large hailstones terminating a battle between Ethelbert and the Danes. This hailstorm does not appear to be noticed by any early writer. FD,p.115

864 Short is apparently the first writer to note a " sharp and long frosty " winter in this year and he also refers to a fall of red snow. He is apparently quoting, however, the *Annales Magdeburgenses*. Later writers have cited this winter as if the reference was to Britain. It is in Easton's list but none of his notices are contemporary and he appears to conclude that the winter referred to is really that of 860. A,II,p.87 etc.

864 Short refers to inundations in the Humber and other compilers follow him. No earlier record known. A,II,p.196

865 **Fall of coloured rain** in Ireland.
Annals of Ulster: Lake Lebinn was changed into the colour of blood so that blood appeared coagulated in it resembling the inward parts of animals. FS,p.228
Possibly the same event as mentioned in 878.

867 **Gale** in Ireland on November 11.
Annals of Ulster: A great wind on the feast of Martin. FS,p.229
Perhaps the original of the " tempests of wind " mentioned by Short. A,II,p.184

867 **Appearance of a new stream** in Ireland.
Annals of Ulster: A bursting forth of an unknown stream on mount Cualan with little black fish. FS,p.229

867 Short relates: A cloud seen hanging over England, half of it like blood, the other like fire. This was followed by the Danish invasion. A,I,p.87
He states that he is quoting from Clarke's " English Martyrology ". He uses very similar words, however, to describe a phenomenon in 787 even to the Danish invasion!

870 Thunderstorms with hail causing casualties and damage. A,II,p.184
No record of this before Short.

c. 870 **Gale** on east coasts.
Richard of Cirencester: However, violent winds contrary to the ships compelled him to land in Scotland at Berwick upon Tweed. EL,I,p.336
Polydore Vergil recounts this storm but says that Lothebroc was driven on to the coasts of east Anglia. FV, p.142

871 Short refers to some phenomena, presumably auroræ. No earlier record traced. A,II,p.175

875 **? Severe winter** in England.
Annals of Waverley: A sharper and more lengthy winter than usual: snow and frost from the Kalends of November to the spring equinox. GB,p.162
This appears to be the only early note of a severe winter about this time and the record is a quotation from Sigebertus Gemblacensis where there is no specific reference to Britain. Holinshed, however, states: All the lochs, rivers and all manners of other waters were frozen in Scotland, from the beginning of November

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till the latter end of April, and when the frost brake and the snows melted, there was such a flood flowing over all the plains as the like had not been seen. J,p.8
There appears to be no primitive authority for this statement. Easton gives numerous references to the severity of the frost in various parts of Europe and it is conceivable that the winter may have been rigorous in Britain also. Short has several references to it. A,II,p.183 etc.

877 **Severe gale** in the English Channel notably at Swanage.
Anglo-Saxon Chronicle: In this year the army came to Exeter from Wareham; and the naval force sailed west about; and then a great storm met them at sea and there perished 120 ships at Swanwick. AC,p 64
Some MSS. of the Chronicle give 878 but nearly all early writers give 877.

878 **Severe thunderstorm** with discoloured rain at Louth, Ireland.
Chronicon Scotorum: It rained a shower of blood which was found in lumps of gore and blood on the plains of Connaught, at Dumha-na-n-Deisi especially. Great wind and lightning. FC,p.167
A note in the chronicle about a solar eclipse, presumably that of October 29, 878, suggests that this chronology is correct. The annals give slightly different years. See in 865 which is probably the same event.

878 Simeon of Durham and other early writers suggest very cold weather in the south of England in the early part of this year. The record is in connexion with the vision of St. Cuthbert to Alfred. Simeon says referring to Alfred's battle with the Danes that the enemy "wept with great lamentations of the severity of hunger and cold. . . .". The date, however, appears to be about May 15. There seems to be no other record of a rigorous winter about this time. FG,p.476 GD,p.114

878 Severe gale. See in 877.

879 Some phenomena (possibly aurora) noted by Short in this year. No earlier record found. A,II,p.175

883 The severe thunderstorms allocated by Short to this year do not appear to be in any early writer. A,II,p.183

885 **Storm** off the Isles.
Boece: To schip than went within ane litill quhile,
For to pas hame with presoner and pray.
Syne as God wald sone efter hapnit sway,
Ane grit tempest, as my author did tell,
Doun fra the hevin of ill wedder thair fell.
Throw wynd and waw tha wer so will begone,
Baith schip and bote were dround that tyme ilkone. AM,II,p.342

885 Inundations of the Dee. A,II,p.196
No earlier reference than Short.

887 Lowe refers to a severe winter in this year but he is deriving from the *Annales Fuldenses.* H,p.22

888 **Gale.** See in 892.

889 Aurora. See in 890.

890 **Aurora** on January 1.
Chronicon Scotorum: The heavens appeared to be on fire at night on the kalends of January. FC,p.173
The Ulster Annals say 889.

892 **Gale** in Ireland in March.
Chronicon Scotorum: Great wind in the month of March which prostrated trees, and bore off the oratories from their sites. FC,p.173
The Annals of Ulster refer to a gale as in 891 or 892 but say it was on November 11, and refer especially to Roscommon. The Four Masters do likewise but date it in 888. FS,p.239

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c. 895 **Heavy snows** in Ireland.
Annals of Ulster: Great snow and a great mortality. FS,p.240
The rubric is 894 or 895.

895 Damage at Shaftesbury by lightning. A,II,p.183
No reference to this before Short.

896 Hailstones at York like ducks' eggs. A,II,p.188
There appears to be no record of this before Short.

898 **Fall of coloured rain** in Connaught.
Chronicon Scotorum: A shower of blood was shed in Ard Ciannachta. FC,p.177

899 **Wet year** in Ireland.
Chronicon Scotorum: A rainy year. Failure of bread. FC,p.177
Annals of Ulster say 899 or 900.

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901 **Storms** on the Irish Coasts.
Annals of Ulster: The sea coasts were laid waste. FS,p.242

c. 905 **Drought.**
Polydore Vergil: In the meane season, throughe a greate drowghte, there chaunced extreeme skarcitee of corne. . . . FV,p.226

908 Most rivers of England frozen for two months. A,II,p.199
Short appears to be the earliest writer to mention this and numerous compilers follow him. Easton can only quote a single authority (in addition to Lowe) and there is no reference therein to English rivers.

909 **Parhelic phenomena** in Ireland on May 6.
Chronicon Scotorum: A wonderful sign appeared in this year viz., two suns were seen to run together on one day, namely that preceding the Nones of May. FC,p.185
Other annals vary the year somewhat.

911 Very deep snows in Scotland. A,II,p.189
No mention of these snows before Short.

912, 913 **Wet years** in Ireland.
Annals of Ulster: A wet and dark year. FS,p.246
This refers to 911 or 912. And again, referring to 912 or 913, they have: A wet and dark year. FS,p.246

912 Howie has the following note: Four rainbows were seen in Scotland and fiery torches in the air. CQ,p.9
No original reference for these phenomena found.

913 Short mentions a severe frost in this year but is probably quoting some continental annalist. No native writer mentions it. Lowe in his list quotes the *Annales Magdeburgenses* as authority for it. Easton has a number of references. A,II,p.199

916 Snows, etc. See in **917**.

916 Severe thunderstorms in Scotland. A,II,p.183
No record traced prior to Short.

917 **Severe winter** in Ireland.
Chronicon Scotorum: Great frost in this year and prodigious snow which inflicted slaughter on cattle. FC,p.189
The Annals of Ulster give a few more details: Snow, and very great cold, and marvellous frost in this year, so that the more important lakes were crossed, and, as a result of which in all Ireland there was a pestilence of herds, birds, horses, and likewise a mortality amongst the flocks. Burning comets were seen in the sky. FS,p.250
Their date is 916 or 917. Later they refer to these "burning comets" as "burning flames" and they may possibly intend an aurora.

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919 Storm destroyed more than 40 houses in Cambridge. A,II,p.188
No record before Short.

920 **Floods** in Ireland.
Four Masters: Great floods in this year so that the waters reached to the Abbey of Clonmacnoise and to the road of the Three Crosses in Ulster. BV,p.434
Short refers to continual rain in Scotland for 5 months in this year but apparently without authority. A,II,p.190

921 **Gale** in Ireland.
Annals of Inisfall: A great wind. CU,I,p.38
The date of this is very dubious.

921 Storm at Manchester. A,II,p.188
No notice of this before Short.

923 River Thames frozen for 13 weeks. A,II,p.199
Nearly all the compilers give this severe winter. The first to mention it appears to be Short. It is not recorded by any early native historian. In another place Short gives the date as 929. Easton gives one or two references, none of them contemporary, to a severe frost about 923, but not one of them, except Lowe's, refers to the Thames. It is interesting to notice, however, that a Dutch source says the Scheldt was frozen over for 13 weeks. Easton rightly considers this rigorous winter as of very dubious historicity, but thinks that the one of 928 or 929 is more likely to be intended. The historicity of both as regards Britain is very doubtful.

926 **Aurora Borealis.**
Anglo-Saxon Chronicle: In this year fiery beams of light appeared in the north sky. AC,p.85

929 Severe winter. See in 923.

934 **Drought** in Ireland.
Four Masters: In this year the mountains of Connaught were burnt with celestial fire, and the lakes and rivers were dried up, and, moreover, several men were burnt. BV,p.456

934 Great frost. See in 941.

935 Extensive floods around Southampton. A,II,p.196
No reference found before Short.

937 A peculiar solar prodigy noted in the Annals of Waverley appears to be quoted from Sigebert. GB,p.165

941 **Great frost** in Ireland.
Annals of Ulster: A great frost, so that the lakes and rivers were passed over. FS,p.264
These annals give the date as 940 or 941. The Four Masters say in 941: A great frost so that the rivers and lakes were made dry and the foreigners laid waste the Island of Mochta by crossing over on the ice. Unfortunately the Ulster Annals repeat their entry in identical words in the year 944. The Annals of Clonmacnoise erroneously assign the event to 934. No English annalist refers to this frost. The severe winter given by Easton about 940 seems to have been most rigorous in central Europe.

942 **Floods** in Ireland.
Four Masters: A great flood in this year so that the half of the eastern part of Clonmacnoise was demolished by the force of the waters. BV,p.467

944 Storm in London which destroyed 1500 houses. A,II,p.188
No mention found before Short. Several compilers follow him.

944 Great frost. See in 941.

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945 **Aurora** in Ireland on October 25.
Chronicon Scotorum : Two fiery columns were seen a week before Allhallowtide which illuminated the whole world. FC,p.207
Later annalists have slightly varying dates.

948 **Drought** in England.
Ingulph : The fact also ought not to pass unnoticed, that about this time there was such a great drought throughout all England, that it did not rain upon the land for the space of three years, and by many it was called " the drought of Elijah ". CT,p.78
Of very doubtful historicity.

951 Great thunders. Southampton nearly destroyed by lightning in a storm lasting four days. A,II,p.183 etc.
Mentioned only by Short.

953 Parhelia seen in Wales. A,II,p.176
First noted by Short.

955 Heavy Snow. See in 959.

955 **Hot summer.**
Brut y Tywysogion : And the hot summer happened. AS,p.23

956 Lowe says " great frost, Thames frozen " and quotes the Annals of Clonmacnoise. There is no such reference in those annals. See in 959. H,p.22

959 **Heavy snow** in March.
Brut y Tywysogion : And a great snow happened in the month of March. AS,p.25
Chronicum Scotorum : A great mortality upon cattle by snow and distempers. FC,p.213
Annals of Clonmacnoise misplace this in 955. Perhaps Lowe is misquoting these annals when he says " great frost, Thames frozen " in 955–6. Short has a reference to severe frost and famine in 956. Other compilers follow him. A,II,p.203

960 **Thunderstorms** near Dublin.
Annals of Ulster : Lightning, proceeding from the south-eastern parts through Leinster, slew 1100 men and beasts near Dublin. FS,p.274
Perhaps the same event as the Four Masters allude to in 962: Lightning killed swans and cygnets in the eastern Liffey. BV,p.490

962 Fatal lightning. See in 960.

963 **Cold weather** in Ireland.
Chronicon Scotorum : Great famine and cold and scarcity of corn. FC,p.215
Other annalists allude to famine about this time but do not refer to the cold weather. Short mentions it under 962. A,II,p.199 etc.

c. 967 Boece relates how the sky in Scotland was darkened for six months after the death of Duff. Short repeats this legend as if it were a fact of observation. If Duff was slain in 967 or 968, the legend may be associated with the solar eclipses in those years. Bocce's account mentions " fiery appearances " as well, and these are quoted by Seller under 965 or thereabouts. AM,II,p.526 FD,p.152

968 Tempestuous winds with rain, spoiling corn and producing famine. A,II,p.184
Mentioned by Short but, according to Lowe, the note is taken from Baronius. H,p.22

969 All grain burnt by wind. H,p.23
Lowe quotes this as from Simeon of Durham, but it does not appear to be in any writing of Simeon's.

971 The body of St. Swithun was translated from the churchyard at Winchester into the cathedral on July 15. Legend states that the occasion was stormy and forty days rain followed. No early account mentions these details. They seem to have accrued at a later date.

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973 Inundations in the Thames. A,II,p.196

First noted by Short. Later compilers, including Symons, follow him.

974 See in 975.

975 **Rainy year** in Ireland.

Four masters: Rainy weather so that the fruits of the earth were destroyed. BV,p.504

The Ulster Annals give the year as 974.

975 Many compilers allocate a severe winter to this year, the first of whom appears to be Short. In another place he gives precise dates, November 1, 974 to March 11, 975. He appears to derive these from the Annales Leodienses or Sigebertus Gemblacensis. No British annalist mentions this rigorous winter but Easton gives a good many continental references none of which contain any allusion to Britain. Probably a severe winter was actually experienced in these islands. A,II,p.199

975 **Hot weather** in July.

Ingulph: . . . after celebrating with much devoutness the feast of the apostles Peter and Paul, our venerable father, the lord abbat Turketul, caught a fever from the intense heat of the Dog-star in that year. . . . CT,p.105

979 **Aurora.**

Simeon of Durham: After this, a cloud appeared at midnight throughout all England, at one time of a bloody, at another of a fiery, appearance, which afterwards changed to various hues and colours: it disappeared towards dawn. FG,p.509

Several early writers note this, the years varying from 978 to 979. The Annals of Waverley quote an exact date, October, 28, 979, apparently from Sigebert, which evidently refers to the same appearance. GB,p.168

987 Short refers to the sky being persistently overcast for 17 days followed by famine. This is a phenomenon which Sigebert appears to allocate to 798 so that Short has got the figures muddled in quoting from this continental historian. A,II,p.179

987 A number of compilers allude to a frost which began on December 22, 987 and lasted 120 days. Easton can hardly muster a single reference to a rigorous winter about this time and none of these mention 120 days' frost. The first notice so far traced is in Luckombe (p. 160). Short notes a "very tempestuous winter" in 987. This frost is almost certainly unhistorical.

It is interesting to note that Cedren, Zonarus and other Byzantine annalists record a frost lasting 120 days in 927. A misquotation of date may be the source of the apocryphal severe winter of 987.

987, 988 Lowe gives these years as times of excessive heat and drought and quotes Simeon of Durham but such a note does not appear in the works of that writer. Symons and others follow Lowe. Short, however, says 987 was rainy! H,p.23 A,II,p.190

988 **Severe gale** in Ireland.

Four Masters: A great and marvellous wind which broke up many roofs and numerous houses at Roscommon and several similar places. BV,p.517

988, 989 The Annals of Waverley have the following record: Frequent inundation of waters beyond what is usual and of long duration; the summer following was very hot and pernicious to many, whence the fruits were diminished. GB,p.168

This account is from Sigebert and may have no application to Britain at all. In 989 the same annals have a further quotation from Sigebertus: Great drought in the spring whence sowing was hindered and a great famine resulted. GB,p.168

Many English compilers refer to these droughts. Symons has 987, 988 and 989 as years of drought and many others follow him. Short has accounts which clearly all derive from Sigebert. N,p.25

There must be some doubt as to whether any of these three years were specially dry in Britain. The Waverley annals is the only native chronicle to mention them and they certainly derive from the Belgian annals. The two Welsh chronicles, *Annales Cambriae* and *Brut y Tywysogion*, allude to famine about this time but do not refer to drought.

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991 Lowe refers to a severe and prolonged frost in this year and quotes *Origones Saxonicum*, but there appears to be no reference to it in any early native or continental historian. H,p.23

991 **Aurora** seen in Ireland on December 25.
Annals of Ulster: A wonderful sight in the night of the feast of Stephen, resembling a burning hand in the sky. FS,p.288

992 **Severe storm,** notably at Lough Hackett, Wicklow.
Four Masters: A great tempest unexpectedly submerged the island in Lough Hackett in one hour, with its defensive works and walls, leaving only 30 feet above water. BV,p.518

992, 993, 994 Various records of drought are found in the compilers about this time. Symons gives "a great drought in summer" under 992 quoting Lowe. He also has drought in 994. Lowe gives the three years 992, 993 and 994 with *Origones Saxonicum* as authority for 992 and the *Annales Quedlinburgenses* as the source for 993 and 994. Other compilers follow all or some of these. No native compilers refer to drought in any of these three years but the Welsh chronicles mention famine. H,p.23
The allocation of drought in Britain to any of these three years must be speculative.

992 Short refers to phenomena (probably aurora) in November. No earlier reference traced. A,II,p.173

993 Short refers to aurora on January 7, but is quoting *Chronicon Magdeburgensis*. Possibly it was seen in Britain also. A,I,p.92

c. 994 **Wet year** in Ireland.
Annals of Inisfall: Great humidity this year so that much grain perished. CV,I,p.53
The chronology of these annals is dubious here.

994 Severe winter from November 1, 994 to May 995. Short seems to be the first to apply this to Britain. From the references in Easton it would appear that this rigorous winter was confined to central Europe. Some English compilers include it in their lists. Short adds in 995 "frost and ice severe in July". He is again quoting from continental sources. A,I,pp.92–3

995 **Lightning** damage at Armagh.
Annals of Ulster: Lightning burnt Armagh and did not spare Roscommon, nor was the Cathedral church, nor the sanctuaries, nor the city towers undestroyed by the fire. FS.p.289

995 A severe hurricane at Chichester noted by Short seems unhistorical. A,II,p.188

995 Frost in July. See in 994.

996 A storm at Colchester noted by Luckombe (p. 170) seems apocryphal.

998 Many compilers, commencing with Short, allocate a severe frost to this year and say that the Thames was frozen for 5 weeks. A,II,p.199
Easton cannot quote any original reference and only cites Lowe as regards the Thames. Probably this frost is quite unhistorical.

§ 7—ELEVENTH CENTURY

The activities of chroniclers and annalists, both at home and abroad, now become much more extensive. The result from our point of view is that the notices of meteorological events become more numerous. Unfortunately the extracts from the original writers which the compilers have used have become so confused that it is a matter of some difficulty to disentangle the undoubted British cases from the foreign. This is due to the fact that the continental writers have been used as freely as the native, and, as no sources are in general indicated, it is by no means an easy task to prepare a trustworthy list especially as our native historians themselves often drew matter from their continental brethren. A glance at the pages of Dr. Short's treatise dealing with this period will shew how confused the data have become. Similarly many of the droughts in Dr. Symons' list in *British Rainfall*, 1887, do not appear to relate to these islands at all. Likewise some of the severe winters are only continental and some are quite apocryphal.

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1006 **Fair weather** in Ireland.
Chronicon Scotorum: Return of peace and fair weather and of food in this winter. . . . FC,p.243

1006 The Annals of Inisfall refer to a great drought in the early part of this year but the chronology is very faulty. Presumably this is the drought in winter and spring quoted by Brooks and Glasspoole from Symons. CV,I,p.57 R,p.151

1008 **Severe winter** in Ireland from January 6 to March 28.
Chronicon Scotorum: Great frost and snow from the eighth of the Ides of January to Easter. FC,p.247

This severe weather would appear to have been confined to Ireland as it is not mentioned in the English annals and Easton has no references to a specially rigorous winter about this time.

1008 **Stormy weather** in the English Channel.
Simeon of Durham: Brithric, having collected eighty galleys, set out to give him chase: however, after he had sailed some time with a fair wind, on a sudden a most violent tempest arose, and wrecked and shattered his ships, and threw them ashore, where they were shortly after burnt by Wulnoth. FG,p.515

The Anglo-Saxon Chronicle gives this to 1009 but most of the early writers agree on 1008. The wrecks occurred off Sandwich.

1009 **Hot summer** in Ireland.
Annals of Ulster: Very hot summer, fruitful autumn. FS,p.299

Symons includes this in his list of droughts. Short gives this year as very rainy but no other writer mentions wet weather in 1009. Possibly a quotation from some continental source. A,II,p.190

1009 Storms. See in 1008.

1011 The Inisfall Annals note a great snow in Irela nd on February 11, lasting three days and nights but the dates are very dubious. CV,I,p.60

1012 Short mentions in various places inundations and great rains in this year. He quotes no original authority and is probably referring to the wet weather of 1014. A,II,p.190

1013 Short alludes to earthquakes in this year with hurricanes, thunder, lightning and floods. No such phenomena are mentioned by any native annalist. See in 1014. Or it may be a muddle for 1031 (q.v.). A,II,p.184 etc.

1014 **Severe marine inundations** on September 28.
Anglo-Saxon Chronicle: And in this year on St. Michael's mass eve came the great sea flood widely through this country, and ran so far up as it never before had done, and drowned many vils, and of mankind a countless number. AC,p.120

Many early writers refer to these floods, some of them giving September 29 as the date. Possibly the floods mentioned by Boece as occurring during the time of Malcolm II happened at this time: The sea, in the simer, rais forther on the land, than evir it was sene afore in ony time. (Vol. II, p. 25, Bellenden's Trans.) In the compilations these floods will be found quoted under 1012 or 1013 as well as 1014. Walford gives all three years! K,p.23

1014 Short refers to a remarkable calamity in this year. He says " a heap of cloud fell and smothered thousands ". He adduces the Anglo-Saxon Chronicle as authority for this phenomenon, a work in which there is certainly no mention of it. It might conceivably be a poetic distortion for a heavy rainstorm in which many people were drowned. A,II,p.180

1015 **Gale** in Ireland in the autumn.
Chronicon Scotorum: Great wind in the autumn, the like or equal of which has not been witnessed in these times, by which the great oak of Regles-Finghin at Cluain-muc-Nois was prostrated. FC,p.257

1016 John de Oxenedes refers to an appearance of aurora in this year but his account is almost verbally identical with Simeon of Durham's description of the aurora of 979. The latter date is doubtless the correct one. CY,p.11

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1016 The Inisfall Annals state: A great murrain of cattle following heavy rains. CV,I,p.62

Walford refers to these rains in his list but the Inisfall chronology is generally very faulty. K,p.23

1016 ? **Severe thunderstorms** with hail.
Lycosthenes: Marvellous hail and fatal lightning. Ethelred, king of the English died and Edmund assumed the administration of the kingdom. DN,p.373

These hailstorms do not appear to be mentioned by any native writer. Short quotes the phenomena. A,II,p.183

1019 **Damage by lightning** at Kildare.
Annals of Ulster: Kildare was entirely burnt by lightning. FS,p.310

Also recorded by the Loch Ce Annals (BC).

1020 See in 1021.

1020 Several compilers refer to a severe winter in this year. Short appears to be the first to do so. Lowe notes it and adduces the Saxon Chronicle but there is no mention of it in that authority. He probably intended to cite *Annalista Saxonicum*. These annals refer to a long hard winter in central Europe but do not refer to Britain. In Easton's list there are a few records from continental sources of a severe winter about 1020 but the application to Britain seems dubious. A,II,p.199

1020 Floods followed by plague are mentioned by Short in this year but no authority has been traced for this. A,II,p.190
He also refers to parhelic displays equally without any foundation. A,II,p.177

1021 **Shower of wheat** in Ossory.
Chronicum Scotorum: A shower of wheat fell in Osraighe. FC,p.261

Most of the Irish annals refer to this phenomenon. BC,etc.

1021 Short gives a hot and dry summer to this year but adds that French and German authorities place the event in 1022. Presumably he is quoting from Sigebertus Gemblacensis here, who records such a summer in 1022 but who certainly does not allocate it to Britain. Compilers following Short give either 1021 or 1022 but Symons says: French and German authorities report a prodigious drought and heat in England in 1022, clearly a mis-reading of Short. Lowe gives the drought under 1022 following Short and also in 1020 quoting the Anglo-Saxon Chronicle. It is not to be found in that authority. A,I,p.95 A,II,p.201 N,p.25

1022 **Thunderstorm with large hail** in Ireland.
Annals of Clonmacnoise: There was a great shower of haile in Summer this yeare the stones whereof were as bigg as crabbes, there was alsoe such thunder and Lightning that it killed an infinite number of cattle everywhere in the kingdome. BA,p.171

The crabbes referred to are, of course, apples, and not crustaceans.

1022 Drought. See in 1021.

1025 A famine following rains is mentioned by Short in this year but no authority has been traced for it. A,II,p.190

1026 **Cold weather** in Ireland.
Tighernach records: . . . and he crossed over the ice to the island of Mochta. . . . FQ,p.278

This island was raided in a similar way in 941.

1029 **Great storm** off Caithness.
Sturlason: In the autumn the jarl made himself ready to go home, but he was very late getting ready. He then sailed out to sea. And about their journey it is to be said that the ship was lost and no man came back from it: it is the talk of some men that the ship had been seen north of Caithness one evening in a great storm when the weather was bad off Pentland Firth. . . . (Heimskringla: Monsen, 1931, p.426.)

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1029 The Inisfall annals refer to damage by lightning to Armagh cathedral but the date is more likely to be about 1045 as the dating of the chronicle is very faulty. CV,I,p.67

1029 **? Marine Inundations.**
Worcester Annals: The sea overflowed and did much damage, that the like had not been seen or heard of before. GK,p.371
No earlier source has been found for this notice which is of XIVth century date.

?1029 John of Wallingford alludes to the dispersal of a fleet of Richard, Duke of Normandy, who was trying to recover England from Canute on behalf of the brothers of Edmund Ironside. No exact date is given. DB,p.563

1031 **Heavy snows** in Tirconnell.
Annals of Loch Ce. "The prey of the snow" by Aedh Neill in Tir-Conaill. BC, I,p.33

1031 Heavy rains are allocated to this year by Short. Boece states the following as in the reign of Malcolm II: On Yule day, the erd tremblit, and ane gret rift was maid be the samin in the middis of Striveling; out of quhilk sprang sa huge multitude of watter, that it bare away the nixt wode to the watter of Forth. (Bellenden's Trans. Vol. II. p. 251). Perhaps Short is referring to these rains. A,II.p.184

1032 **? Heath fires.**
Anglo-Saxon Chronicle: In this year appeared the wild-fire such as no man before remembered: and moreover it did harm in many places. AC,p.128
This is noted in the Irish annals which add that there was damage at York. *Chronicum Scotorum* "Tene gelain in Saxon land and it burned many men and Caer-Abroc". Most translators have rendered the words "Tene Gelain" as lightning but Hennessy considers that will-of-the-wisp is a better translation. Both O'Conor and O'Flaherty translate it "fulmen". The phrase used in the Anglo-Saxon Chronicle is "wilde fyr". FC,p.271

1033 In his list of solar phenomena "without eclipses" Short includes on July 6 this year "sun of a sapphire color". Nevertheless the reference, if genuine, probably relates to the eclipse of June 29. A,II,p.179

1035 Many compilers refer, in one way or another, to a frost on June 24 which was so severe that a great deal of corn and fruit was destroyed. A note in *Nature*, Vol. 125, p. 956, gives the date as 1034 and cites the Anglo-Saxon Chronicle but it does not appear to be mentioned in that history. Boece appears to be the authority for the incident: On midsimer day, callit the Nativitie of Sanct Johne, Baptist, was sa schill frost, that all the cornis war slane, and made gret derth in the cuntre. He merely states, however, that this occurred in the reign of Malcolm II (1004–1034) without giving any definite year.

1037 **Wet year** in Ireland.
Annals of Loch Ce: Prodigious tempests and great moisture this year. BC,I,p.39
Other annals have similar notices. FS,p.324

1039 **Stormy winter.**
Simeon of Durham: There was a very severe winter this year. FG,p.350
Anglo-Saxon Chronicle: In this year was the great wind. AC,p.131
In the same year the Anglo-Saxon Chronicle records a season of great famine so that Simeon may have intended by the phrase "severe winter" a stormy and famine-stricken winter.
Boece allocates deep snows to 1040 at the same time referring to them in connexion with the death of Malcolm which was some years earlier. AM,I,p.619

1040 Snows. See in 1039.

1041 **Tempestuous year.**
Anglo-Saxon Chronicle: And all that year it was very sad in many and various things, both in tempests and in earth fruits. And so much cattle perished in this year as no man before remembered, both through various diseases and through bad weather. AC,p.133
Some MSS. date these troublous times in 1043. Short quotes the events several times, sometimes with one date and sometimes with the other. A,II,p.185 etc.

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1043–1045 Short says of 1043, " a great snow fell in harvest " ; of 1044, " tempests and floods in November " ; and of 1045, " summer rains, harvest snows, rained all November ". Thus events attributable to various years seem to have been thoroughly muddled together. In any case the information does not appear to have been derived from any native source. A,II,p.189–90

1045 Lightning. See in 1029.

1046 According to Short there were great inundations in the Severn drowning many cattle. Other compilers follow him including Southall. No authority for the event has been traced. (See *London Quart. J. R. met. Soc., 21, 1895, p. 35.*) A,II,p.196

1045–1046 See in 1047 for a severe winter sometimes allocated to these years.

1047 **Severe winter** with heavy snows.

Many annalists record this rigorous winter with dates varying from 1045 to 1048. Easton gives several continental notices of it and inclines to the date 1047 or 1048. FC,p.277

Annales Cambriae : Snow fell and remained from the kalends of January to the festival of St. Patrick, whence it was called the great snow. AP,p.24

Simeon of Durham : So heavy a snow fell in the west as to break down the trees. FG,p.533

These are the earliest accounts and their date is 1047 although there is a MS. of the *Annales Cambriæ* giving 1048.

Anglo-Saxon Chronicle : And in this same year, after Candlemas, came the severe winter, with frost and with snow, and with all kinds of bad weather, so that there was no man alive who could remember so severe a winter as that was, both through mortality of men and murrain of cattle : both birds and fishes perished through the great cold and hunger. AC,p.136

The Irish Annals also mention this severe winter.

Four Masters quote a distich upon the topic :

Seacht mbliadhna cithracha cain acus mile co nglan bhail,
O ghein Criost clu cen tearca co bliadhain an mor sneachta BV,p.590

Dr. O'Donovan's translation is :

Seven years and forty fair, and a thousand
of fine prosperity
From the birth of Christ, of fame unlimited,
to the year of the great snow.

In his list, Baker gives severe winters to 1045, 1047 and 1048. They clearly all refer to the same occasion. J,p.13

1048 **? Heath fires.**

Simeon of Durham : . . . a mortality among men and animals prevailed throughout many of the provinces of England, and fires in the air, commonly called woodland fires, destroyed towns and crops of standing corn in the province of Derby and some other provinces. FG,p.533

Roger de Hoveden and some copies of the Anglo-Saxon Chronicle allocate this to 1049 but as the year in question seems to have been one in which May 1 was a Sunday, 1048 would appear to be the true date.

Fabyan, followed by Holinshed, Speed and Seller, refers to severe damage by lightning as in 1047. His account of the casualties, however, is almost the same as the contemporary accounts of the damage done by the " wild-fire " and probably refers to those events. BP,p.225

Presumably the phenomenon here designated wild-fire is the same as that mentioned in 1032.

1048 Severe winter. See in 1047.

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1049 **Storm** off the Essex coast: Osgod Clapa's fleet destroyed.
Simeon of Durham: But in returning they were overtaken by a violent storm, which sank them all save two. . . . FG,p.534
MSS. of the Anglo-Saxon Chronicle vary between 1049 and 1050 in describing this catastrophe.

1049 See in 1048 for a note *re* heath fires.

1050 **Wet Year** in Ireland.
Four Masters: A great inundation of rain happened in Ireland, which carried away comestibles, milk, fruit, fish. . . . BV,p.605
Later they mention damage to buildings and property.

1051 **Stormy weather** in Bristol Channel.
Anglo-Saxon Chronicle: . . . and he then went out from the mouth of the Avon: but he encountered such adverse weather, that he got off with difficulty and suffered great loss. AC,p.145

1052 **Stormy weather** in the English Channel about July.
Anglo-Saxon Chronicle: Then in the meanwhile earl Godwine was warned and betook himself to Pevensey: and the weather was very violent. . . . AC,p.150

1052 **Gale** on December 20.
Simeon of Durham: In the same year on the night of the feast of St. Thomas the Apostle, there was a wind so strong and violent that it blew down many churches and houses, and broke numberless tress, or tore them up by the roots. FG,p.537
Some MSS. of the Anglo-Saxon Chronicle have this in 1052 and others in 1053. Some add " all the Mid-winter there was much wind ".

1055 A hurricane at Coventry destroying 400 houses is noted by Short. It appears to be unhistorical. A,II,p.188
Luckombe (p. 170) and Gutch mention a similar event but place the 400 houses in London. E,p.139

1056 **Destructive lightning** in Ireland.
Annals of Loch Ce: Lightning came and killed three persons at Dasert-Tola, and a student at Sord, and broke fastnesses. BC,I,p.53

1057 Short refers to heavy snows in this year. In another place he gives a hailstorm mixed with stones. No earlier mention traced. A,II,p.189 A,II,p.180

1059 Some compilers allocate a severe frost followed by famine to this year. No native writer mentions this and the reference would appear to be to Hermannus Contractus. Lowe in noting the event cites Sigebert but Easton does not cite that writer amongst his quotations. Of very dubious application to Britain. A,II,p.199 H,p.23

1061 Some compilers, of whom the first appears to be Short, say the Thames was frozen for seven weeks. This appears to be quite unhistorical. A,II,p.199

1062 Short notes a thunderstorm accompanied by an earthquake in this year. No earlier reference found. A,II,p.183

1063 There are many compilers who refer to the Thames being frozen for 14 weeks, but none give any authority. Thomson, it is true, quotes Holinshed, but that historian does not appear to mention it. Easton gives a number of quotations as to the severity of this winter but the only British source he can quote is Lowe ! Curiously, one of the Dutch sources he cites says that the Scheldt was frozen for 14 weeks. This is probably the source of the legend that the Thames was similarly frozen. Possibly there was a rigorous winter this year in Britain although no domestic writer mentions it. Short also refers to " tempestuous winds and deep snows four days together " but there seems no earlier warrant for this. A,II,p.199 FO,p.68

1064 Luckombe (p. 170) refers to a severe storm in Edinburgh which is very probably mythical. Gutch follows him. E,p.139

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1064 Under date 1065 Walter de Hemingburgh states : Therefore Harold embarked on his ships ; a great storm arose, and he was driven into the river of Ponthieu which is called Maia. . . . FZ,I,p.6

It was upon the occasion of his being driven ashore by this storm that Harold was alleged to have made his celebrated compact with William of Normandy. Many writers mention the event but with very variant dates. Freeman, in his study of William the Conqueror, forms the conclusion that the affair, if it actually happened, took place sometime in 1064.

1066 **Storm** in the North Sea on September 24(?)

Seller refers to a storm which wrecked a Danish fleet on the English coasts the day before the battle of Stamford Bridge. No earlier reference traced. FD,p.195

1066 **Adverse winds** in the English Channel in August.

William of Malmesbury : . . . and, in the month of August, reassembled in a body at St. Vallery. . . . Collecting therefore ships from every quarter, they awaited the propitious gale which was to carry them to their destination. When this delayed blowing for several days, the common soldiers, as is generally the case, began to mutter in their tents. . . . The duke held a council with his chiefs, and ordered the body of Saint Vallery to be brought forth and to be exposed to the open air, for the purpose of imploring a wind. No delay now interposed and the wished-for gale filled their sails. . . . GD,p.274

A number of other writers allude to this incident. ET,I,p.329

1066 **Weather** at Stamford Bridge on September 25.

Sturlason : At this time there was very good weather and the sun was hot. . . . In the evening a wind arose and it was somewhat cold . . . (Heimskringla : Monsen, 1931, pp.563,568).

1066 Short allocates a severe winter to this year, but very few compilers follow him. Probably this is unhistorical as, according to Easton's catalogue, there was a mild winter in 1066. A,II,p.199

1067 **Storms** in the North Sea.

Roger of Wendover : Amongst others, Edgar Atheling, the lawful heir to the English throne, seeing the distracted state of the country, took ship . . . attempted to return to Hungary, his place of birth, but they were driven by a storm into Scotland. ET,I,p.334

Anglo-Saxon Chronicle mentions the journey but not the storm. The Scottish chroniclers mention these incidents.

Boece's account is :

> Thair passage maid than out of Thamis mouth.
> The wind it blew so stark out of the south,
> Ay be ane burd it draif thame to the north,
> Quhill tha tuke land richt far vp into Forth,
> Into ane place, as my author did sa,
> Sanct Margaretis-hoip is callit at this da. AM,II,p.673

1067 **Aurora** on December 6.

Gaimar records : But in coming from Normandy some of his people perished in the sea. In this year, truly, several people saw a sign ; in appearance it was fire : it flamed and burned fiercely in the air ; it came near to the earth, and for a little time quite illuminated it ; afterwards it revolved and ascended up on high, then descended into the bottom of the sea ; in several places it burned woods and plains. There was no man who knew with certainty what this divined, nor what this sign signified. In the country of the Northumbrians this fire showed itself ; and in two seasons of one year were these demonstrations. BY,p.795

Anglo-Saxon Chronicle gives the date of the return from Normandy as December 6 but does not mention the auroral appearances.

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1067–1068 Lowe refers to a great frost in this winter and quotes Walford. It does not, however, appear to be mentioned in Walford's lists. Possibly there is some confusion with 1069. H,p.23

1069 **Very cold weather** in January.

Several compilers, including Short and Lowe, allocate a severe winter to this year, Lowe quoting the Magdeburg Chronicle as his authority. There is, however, one reference by a domestic writer to severe weather in the early part of this year. Simeon of Durham relates an incident in the flight of the Northumbrians before Robert Cumin in January : . . . but a sudden snowstorm and a frost of extreme severity supervening, effectually prevented them from putting their intentions into practice. FF,p.686

Easton seems to intimate that Roger de Hoveden mentions a severe frost about this time, but no such note is to be found in Roger's writings.

1069 The anonymous contemporary record " The Narrative of the Translation of the Body of St. Cuthbert " mentions the following incident in connexion with a raid by William I on Durham in this year : When they had come as far as Alverton, and were about to proceed to Durham in the morning, so dark a fog came on, that they could neither see one another nor find their way.

According to the Holyrood Chronicle, the date of this fog was January 29. CP,p.71

1069 **Strong winds** on September 19.

Walter de Hemingburgh gives an account of the burning of York by William I's men and refers to the strong winds that fanned the flames. FZ,I,p.11

1070 **Stormy weather** in the North Sea in mid-June.

Anglo-Saxon Chronicle : . . . when the Danish men went out of Ely with all the aforesaid treasure and conveyed it with them. When they came in the middle of the sea, a great storm came and scattered all the ships in which the treasures were : some went to Norway, some to Ireland, some to Denmark. . . . AC,p.178

1070 Short allocates a selection of optical phenomena to this year, all in February. They include a sun pillar, solar and lunar haloes and other phenomena. No earlier account has been found. A,II,p.174 etc.

1072 **Cold weather** about November 1.

Roger de Hoveden : Now at this period the cold weather was very severe. . . . ES,I,p.152

The Worcester Annals allude to a frost from the beginning of November to mid-April but this is no doubt an error for 1076. GK,p.374

?1073 Ingulph refers to a gale on December 13, about this time but the exact year appears doubtful. No other writer mentions this gale. CT,p.144

1075 **Gale** in the North Sea about August.

Anglo-Saxon Chronicle : But on the voyage evil befel them when they were out at sea : so that there came on them very rough weather, and the raging sea and the strong wind cast them on the land so that all their ships burst asunder. . . . AC,p.180

Some MSS. have 1074 as the date of this event.

1076 Very many compilers include a severe winter about this time, and it is mentioned by a number of early writers. The earliest of these is Radulphus de Diceto about 1200. He says of 1076 " A great cold and huge frost from the kalends of November to the middle of April. This seems to be derived from Sigebertus Gemblacensis. EH,p.210 Later Bartholomew de Cotton and Matthew of Westminister have very similar accounts apparently derived from the same source. The compilers give somewhat variant dates but November 1076 to April 1077 seems to be preponderant.

Easton quotes many references shewing that this was a very rigorous winter in western Europe, and although native writers appear to mention it only from a continental source, it seems probable that this winter was actually a severe one in Britain.

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1076 **Heavy rainfall** in Lincolnshire.
Ingulph: . . . when, behold! a most dense cloud covered the sun in his course, and brought on, as it were, the shades of night, while the heavens poured forth such a deluge of rain, that, from the flowing of the waters, the days of Noah were thought to have come again. CT,p.155
No precise date is given.

1077 **Gale** in Ireland in autumn.
Annals of Inisfall: A great wind in autumn in this year so that much seed was destroyed. CV,I,p.80
The annals rubricate this 1060 but their chronology is 17 years in arrear here.

1078 Lowe refers to a great frost and snow this year on the authority of the Annals of Inniskillen. Presumably he means the Annals of Inisfall which mention such an event in 1078 but their chronology is very faulty and about 17 years in arrear at this point. They probably refer to the year 1095 (q.v.).

1078 **Heath fires** in England, and **drought.**
Anglo-Saxon Chronicle: And in this year was the dry summer, and wildfire came in many shires and burned many towns; and also many burghs were burnt. AC,p.183
Some MSS. say 1078 and others 1077.

1080 **Gale** on December 24.
Chronicle of Winchester: A severe wind on the night of Christmas. GJ,p.391
Holyrood Chronicle: There was a very high wind at Christmas. CP, p.72
Many later annalists record this gale.

1083 Baker refers to very heavy rains in the autumn of this year and quotes as authority Speed. This historian, however, merely mentions that there were great rains one year during William's reign, without specifying which year. No contemporary native historian gives 1083 as a wet year. J,p.15

1084 **Heat and drought** in Ireland.
Tighernac records: There began a heat and unusual drought throughout the four states of Ireland. FQ,p.312

1084 "Battles in the Air" (i.e. aurorae) are given by Short but no references have been traced. A,II,p.175

1085 **Hard frost** in Lincolnshire.
Ingulph: A very few days after I arrived there, the winter came on with more severity than usual; on which, all the waters around us were frozen with hard ice, and the entire passage for vessels was for some days cut off; but still, the ice was not so strong or so thick as to suffice for the support of vehicles or waggons for the carriage of any necessaries to the monastery, though it was so hard and thick that all navigation was entirely put an end to. CT,p.191
Several compilers notice this severe winter. Walford in his "Insurance Encyclopædia" states that there were many fires during this cold winter on account of the unusual efforts required to warm the houses.
There is no reference to this winter in Easton's work. No reference has been traced in any other early writer except Ingulph, but a very brief notice has been found in Lycosthenes, no doubt derived from Ingulph.

1086 **Unseasonable weather with many thunderstorms.**
Anglo-Saxon Chronicle: And the same year was a very heavy and toilsome and sorrowful year in England, through murrain of cattle, and corn and fruits were at a stand, and so great unpropitiousness in weather as no one can easily think: so great was the thunder and lightning that it killed many men; and ever it grew worse with men more and more. May God Almighty better it when it shall be his will. AC,p.187

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Many early writers give similar accounts. Roger of Wendover suggests that there were heavy rains also : A great inundation caused danger and loss in many places, so that many rocks were loosened and overwhelmed several towns in their fall. ET,I,p.351
Lowe, followed by Symons and later compilers, gives a drought to this year. He is, however, quoting Sigebert and the drought is probably inapplicable to Britain. H,p.23

1087 **Another unseasonable year.**
Anglo-Saxon Chronicle : Such a malady fell on men that almost every other man was in the worst evil, that is with fever, and that so strongly that many men died of the evil. Afterwards there came, through the great tempests which came as we have before told, a very great famine all over England, so that many hundred men perished by death through that famine. AC,p.187

The record would appear to mean the storms already recounted in 1086 but possibly 1087 was unseasonable also. There seems to have been much famine and pestilence in both years. Matthew of Westminster mentions tempests, thunder and lightning in 1087 but appears to be quoting the same set of events that the Anglo-Saxon Chronicle places in 1086.

1087 Seller states that St. Paul's Cathedral was set on fire by lightning in this year. FD,p.209
No one previous to Seller seems to have heard of this conflagration due to lightning.

1087 **Gale** in Ireland.
Four Masters : . . . and a mighty wind destroyed houses and churches. BV,p.653

1088 The thunderstorms quoted by Short as in this year probably refer to 1076. He also mentions aurorae, but no earlier reference to these has been found. A,II,pp.183,174

1089 **Gale** in Ireland April 1.
Chronicon Scotorum : The Easter of the Wind. FC,p.301

1089 **Very bad year** in England, some corn not in till November.
Anglo-Saxon Chronicle : And it was a very backward year in corn and in fruits of every kind ; so that many men reaped their corn about Martinmas and yet later. AC,p.194

Other chroniclers who mention this bad summer say that it followed an earthquake. GH,p.36
GD,p.342

1090 ? **Very wet summer** from June 24 to September 29.
Winchester Annals : In this year it rained daily from the Nativity of St. John to the feast of St. Michael. GH,p.36

This wet period does not appear to be mentioned in any other chronicle.

1090 According to Stow, the White Tower was damaged this year in a storm but no original reference has been traced. Probably the storm is that of October 17, 1091. FL,p.42

1090 There were aurorae in October according to Short, but no native historian mentions them or those of 1091 in Short's list. A,II,p.173

1090 Floods. See in 1091.

1091 **Seasonable year** in Ireland.
Annals of Loch Ce : A sappy plentiful year, of good weather, was this year. BC,1,p.79

1091 **Storm** in the North Sea about September 29.
Walter de Hemingburgh : . . . . . but before they arrived in Scotland, a great tempest arose about the feast of St. Michael, and almost the whole fleet was sunk, many of the horsemen of the army perishing with hunger and cold. . . . FZ,I,p.23

1091 **Severe thunderstorm** at Winchelcombe on October 15.
Simeon of Durham : On the ides of October, being the fourth day of the week, a violent flash of lightning struck the tower of the church of Winchelcombe, and made a wide opening in the wall, close to the roof : it split asunder one of the beams, and giving a

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severe blow to the image of Christ, hurled the head to the ground and broke the right thigh. The image also of St. Mary, which stood near the cross, was struck by the flash, and fell to the ground : after which there followed a great smoke, with an excessive stench, which filled the whole church and lasted until the monks of the place, chaunting psalms, had gone round the buildings of the monastery with holy water and incense, and relics of the saints. FG,p.571

Many compilers refer to this storm but with incorrect dates. Some give October 5 and some October 1 and the year varies between 1090 and 1091. The correct date is October 15, 1091. A note in *Nature*, Vol. 126, page 553, cites the Anglo-Saxon Chronicle as authority for the event but it does not appear to be mentioned in that work.

1091 **Great gale** in London on October 17.

Roger de Hoveden : In addition to this, on the sixteenth day before the calends of November, being the sixth day of the week, a violent whirlwind coming from the south, blew down more than six hundred houses in London, and a considerable number of churches. It attacked the church which is called St. Mary le Bow, and killing two men there, lifted the roof with the rafters aloft, and after carrying it to and fro in the air, at length fixed six of the rafters in the same order in which they had been originally inserted in the roof, so deep in the ground, that of some of them only the seventh, of some the eighth, part was visible : and yet they were seven or eight and twenty feet in length. ES,I,p.174

As in the case of the previous event, there is much misquotation of dates in the compilations.

Some later historians add that there was damage at Salisbury on the same day by a gale. William of Malmesbury, however, separates the two cases, giving the Salisbury storm as a year later than the London one. Probably it was in this storm of October 17, 1091 that the damage was done at the Tower of London which Stow allocates to 1090. FL,p.42

1091 Lowe, probably following Timbs, mentions a flood on November 6, in which London Bridge was swept away. Baker gives this event both in 1090 and 1091 and quotes Florence of Worcester in the latter case. Florence, however, does not appear to mention the event and no note of it has been traced in any other historian. J,pp.16,17

1091 Aurora. See in 1090.

1092 **Severe thunderstorm** at Salisbury on April 10.

William of Malmesbury : In his fifth year, a similar thunderstorm at Salisbury entirely destroyed the roof of the church tower : and much injured the wall, only five days after Osmund, the bishop of famed memory, had consecrated it. GD,p.343

William does not give the precise date but Roger de Hoveden tells us that the church was consecrated on April 5, 1092. The *Eulogium Historiarum*, a later chronicle also gives the storm as on April 10. BN,p.50

1092 **Very wet year followed by a severe frost.**

William of Malmesbury : In his sixth year there was such a deluge of rain, and such incessant showers as none had ever remembered. Afterwards on the approach of winter, the rivers were so frozen that they bore horsemen and waggons ; and soon after when the frost broke, the bridges were destroyed by the drifting of the ice. GD,p.343

Roger of Wendover, a later writer, has a similar account, but in the year 1093. Matthew of Westminster writing about a century and a half later, records floods in 1092 and again in 1093, making the severe winter follow the latter, that is, to fall in 1093–4. Matthew probably combines the accounts of William and Roger. According to Easton the date would appear to be 1092–3 which is that of William of Malmesbury, the earliest historian who mentions it. Both sets of dates are found in the compilers according as they used one or other of the historians mentioned.

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Some compilers cite Roger de Hoveden who does not appear to mention this frost at all. In the Irish Annals, the event is noted by the Four Masters ; they record in 1092 "A huge snow fell afterwards" ; and in 1093, "a great snow and frost this year so that the lakes of Ireland were congealed". Both these entries might refer to the winter 1092–3. BV,p.661

1092–3 **Severe Winter.** See in 1092.

1093 **Heavy rains** in northern England in November.
Simeon of Durham : His army either fell by the sword, or those who escaped the sword were carried away by the inundations of the rivers, which were more than usually swollen by the winter rains. FG,p.574

Evidently this is the occasion to which Simeon refers in more detail in another place. The efforts of Malcolm III to cross the Tyne and his frustration by the floods are there given a quasi-miraculous character. FG,p.446
Aelred of Rievaulx also gives a detailed account of the events in his *De Sanctis Ecclesiae Haugustaldensis*.

1094 **Unseasonable year** in Ireland.
Annals of Loch Ce : Great inclemency of the weather in all Erinn, from which grew scarcity. BC,1,p.81
Ulster Annals : Great inundations in all Ireland. FS,p.357

Short gives these rains as in 1093 and 1094. A,II,p.190

1094 Aurorae are listed in this year by Short but no earlier reference has been found. A,II,p.173

1095 **Heavy snow** in Ireland on January 3.
Annals of Loch Ce : Great snow fell on the Wednesday after the kalends of January which killed a multitude of men, cattle and birds. BC,I p.81

1095 **Unseasonable Weather** in England.
Anglo-Saxon Chronicle : In this year also were very unseasonable tempests, and therefore, through all this land the earth-fruits were all turned to mediocrity. AC,p.200

1095 **Very hot weather** in Ireland.
Chronicon Scotorum : This year was the year of the heat so that there is no reckoning the number of people whom it killed. FC,p.303

1095 **Drought** in spring.
Hermannus the Archdeacon gives the following in his account of the translation of the relics of Saint Edmund on April 29 : Now hitherto the face of the earth was greatly dried up and suffered from drought ; men were without hope, the earth brought forth her fruits tardily . . . (after prayers by the Bishop of Winchester) . . . small drops of rain graciously descended upon the faces of men. (*De Miraculis Sancti Eadmundi :* Edited Arnold, 1890, p.90).

1095 Short has the following circumstantial account of the meteorology of this year : . . . were many tempests this year, excessive summer rains, therefore corn and fruit in many places were not good. It was a late bad harvest, much corn was not got in before November the 10th. After the rains, a great Intemperature of the Air : a most severe winter, all Rivers so frozen that Horses and Loading went over. A,I,p.104

This is a garbled mixture of details culled from various sources referring to various of the years 1089 to 1093. He refers to this rainy harvest followed by frost in another place as in 1096.
Some compilers give all the winters from 1095 to 1099 as severe ones. Short gives, in various places, 1095, 1096, 1099. This is all very dubious as the winters of this period would appear to be, on the whole, mild. M,p.4

1096 Severe winter. See in 1095.

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1097 **Rough weather** in the Channel in April.
Anglo-Saxon Chronicle: In this year was King William at Christmas in Normandy, and then toward Easter was coming hither to this land, because he thought to hold his court at Winchester, but he was detained by bad weather until Easter Eve. AC,p.201

1097 **Unseasonable weather** in England.
Anglo-Saxon Chronicle: This was in all things a very sad year, and over grievous from the tempests . . . AC,p.202
Short dates this variously in 1097 and 1098.

1097 Severe weather. See in 1095.

1098 **Wet year** in England.
Anglo-Saxon Chronicle: This was a very sad year, through manifold unjust imposts, and through the great rains, which ceased not all the year: nearly all the tilth in the marsh land perished. AC,p.203

1098 **Wet year** in Ireland also, followed by **heavy snows.**
Chronicon Scotorum: A wet and fertile year . . . . Great snow in this year. FC,p.305

?1098 **Aurora** on September 27.
Simeon of Durham records on September 29, 1097: A star called a comet appeared on the third of the kalends of October for fifteen days: some affirmed that at that time they saw in the heavens a wonderful sign like a burning cross. FG,p.579
On September 27, 1098, he records: An unusual light shone throughout almost the whole night on the fifth of the kalends of October. FG,p.579
Other early writers refer to both these phenomena and it is quite possible that there was a bright auroral display in both years. The almost exact coincidence of dates, however, involves the possibility that the same event has been entered to both years.
Short mentions aurorae in 1099 but his account probably derives from a foreign source.

1098 Severe winter. See in 1095.

1099 Aurorae. See in 1098.

1099 **Gale** in the English Channel about May 30.
Henry of Huntingdon: He instantly rode to the coast and took ship, whereupon the sailors said to him, " Wherefore, great king, will you have us put to sea in this violent storm. Have you no fear of perishing in the waves? " To which the king replied, " I never yet heard of a king who was drowned ". He had a safe passage . . . CO,p.238

1099 **Marine inundation** on November 11.
Anglo-Saxon Chronicle: In this year also, on St. Martin's mass day, the sea flood sprang up to that degree and did so much harm as no man remembered that it ever before did, and it was on the same day a new moon. AC,p.203
Simeon and other earlier writers in mentioning this flood give the date as November 3. If the flood actually occurred on the day of the new moon of November 1099 it was on the 15th of the month. William of Malmesbury in his account particularises the Thames Estuary as the site of the calamity. Seller amplifies the authorities into " the sea overflowed its Banks in Kent, and lay'd under Water all the Lands that had been Earl Goodwin's: being about 4,000 acres, Drowning much People and Cattel, and Demolishing many Villages." FD,p.224
The formation of the Goodwin sands by the inundation of part of Kent is found in several writers. Camden gives it 1097, according to Baker, while Holinshed, also according to Baker, places the formation of the sands in 1092. Possibly the great inundation of 1099 is the source of the legend.

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Camden actually says: off Broadstairs are the Goodwin Sands which tradition supposes the estate of Earl Goodwin swallowed by the sea. (Vol. I of Gough's 1789 edition of "Britannia", p. 240.)

1099–1100 Short refers to this as a severe winter but is apparently quoting a foreign source, *Annalista Saxonicum* (?). Other compilers give it as 1100–1 including Short himself. See also in 1095. A,I,p.105

1100 Holinshed mentions very high tides in the Thames but the reference is clearly to the inundation of 1099.

§ 8—TWELFTH CENTURY.

1100–1 Severe winter. See in 1099–1100.

1102 Short alludes to both drought and heat in this year and other compilers, including Symons, follow him. No note of it by any early writer has been traced. A,II,p.106 etc.

1103 **Gale** on August 10.
Anglo-Saxon Chronicle: Also in the morning of the mass day of St. Laurence the wind did so great harm here in the country to all fruits, as no man remembered that it ever did before. AC,p.206

Other early historians give August 11 as the date. ES,I,p.196

1103 **Weather** in Ulster on August 24.
Sturlason: The weather was calm and the sun was shining. (Heimskringla: Monsen, 1931, p. 603.)

1104 Snows, etc. See in 1105.

1104 **Solar haloes** on June 7.
Anglo-Saxon Chronicle: In this year the first day of Pentecost was on the nones of June: and on the Tuesday after there appeared four circles about the sun at midday, of a white hue, each twined under the other as if they were painted. AC,p.207

This must have been a very remarkable display of haloes as a very large number of chroniclers refer to it and in two annals at least a sketch was given of the appearance of the phenomenon. Unfortunately these sketches bear very little resemblance to each other. The Margan Annals, which are nearly contemporary, reproduce it as Fig 1. AH,p.57 FZ,I,p.40 DP,p.8

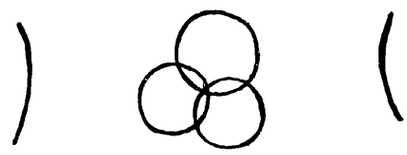

FIG. 1

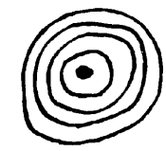

FIG. 2

The *Eulogium Historiarum*, a much later compilation, has it as shown in Fig. 2. In the MS. the central disc is in red and the rings alternately blue and red. BN,p.296

Ralph of Coggeshall adds to his description a further note: From the first circle (that is, the middle) there were projected two horns, like goats' horns, towards the right and the left of the other circles. . . . EG,p.5

Dr. C. E. P. Brooks comments thus on this display: My reading of this phenomenon is that there was the ordinary 22° halo, the circumscribed elliptical halo, the mock sun ring and the tangential arcs to the halo of 46°. This is a fairly common combination. At midday in June the elliptical halo would be so nearly circular as to give the impression of two intersecting circular haloes and the mock sun ring would be about the same size. Careless drawing would easily make the two coloured haloes into concentric coloured circles of red and blue.

Short quotes this display as in 1104 or 1106.

1105 **Snow and floods** on January 25.
Annals of Margan: Also a great snow fell this year . . . . . And in this year there were excessive floods in the rivers on the 8th of the kalends of February. DP,pp.8,9

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Short gives these events in 1104 in one place and in 1105 in another. He also refers to marine inundations in 1106. A,I,p.106 etc.
The Inisfall Annals mention a great snow about 1105, probably referring to the same event. CV,I,p.95

1105 Perhaps the parhelic display noted by Short as in this year refers to the case of June 7, 1104. A,II,p.176
He also refers to aurora on December 23, but no earlier note has been traced. A,II,p.178

1106 **Paraselenae** on March 22.
Anglo-Saxon Chronicle: On the night, the morrow of which was *Coena Domini*, that is, the Thursday before Easter, were seen two moons in the heaven, before day: one in the east and the other in the west, both full: and the same day was the XIVth of the moon. AC, p.208
Many early writers quote this. No doubt it was specially noted as it occurred on Holy Thursday.

1106 Short has notes of auroræ on October 11 and 24, and of very destructive tempests during the year but no earlier record has been found. A,II,pp.173,185

1106 Snows, etc. See in 1105.

1107 **Heavy Snow** in Ireland on March 23.
Annals of Loch Ce: Snow fell for a day and night the Wednesday before the festival of Patrick, which caused a great destruction of cattle in Erinn. BC,I,p.97

1107 **Gale** in Ireland on November 1.
Chronicon Scotorum: The All-hallowtide of the wind. FC,p.311
And again: Great wind and tene gelain in Erin this year which killed a multitude of people and cattle. FC,p.311
Some annalists translate tene gelain as lightning. Thus O'Conor in his edition of the Four Masters gives "Ventus ingens et fulgura, etc." BV,p.690
See under 1032 for a note on this point.

1107 **Wet year** in Ulster.
Annals of Ulster: Great flooding showers this year so that the seed was destroyed. FS,p.371

1108 **Seasonable year** in Ireland.
Annals of Loch Ce: A great crop of oak fruit throughout all Erinn. A sappy year, with good weather, and with much corn and produce, was this year. BC,I,p.99

1108 **Lightning** causes fires in Limerick.
Annals of Ulster: Limerick burnt by lightning. FS,p.372

1109 **Thundery year.**
Anglo-Saxon Chronicle: In this year there were very many thunder-storms and those very awful. AC,p.210

1110 **Unseasonable year.**
Anglo-Saxon Chronicle: This was a very calamitous year in this land, through the taxes which the king levied for his daughter's marriage, and through tempests, by which the earth-fruits were greatly injured, and the tree fruits over all this land almost all perished. AC,p.211

1110 **Sharp night frost** on May 5.
Anglo-Saxon Chronicle: All the night the air was very clear, and the stars over all the heaven were brightly shining. And the tree fruits on that night were sorely nipt. AC,p.210
The night in question was that of the lunar eclipse of May 5.

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1110 **Desiccation** of the Trent (? due to an earthquake).
Roger de Hoveden: A very great earthquake took place at Shrewsbury. The river at Nottingham, which is called the Trent, was dried up for the space of a mile from morning till the third hour of the day, so much so, that men walked with dry feet upon its bed. ES,I,p.203

Fabyan says that this event happened in June, although he wrongly places it in 13th Henry I. It is also referred to in many early annals. Sir Richard Gregory alludes to it, quoting John de Oxenedes although it does not appear to be recorded in that particular history. Perhaps there is confusion here with the desiccation of the Thames four years later which is described by John de Oxenedes. BP,p.256 FZ,I,p.41 CY,p.44

1110–1111 **Long and hard Winter.**
Anglo-Saxon Chronicle: In this year was a very long and sad and severe winter: and thereby were the earth fruits greatly injured . . . AC,p.211
Chronicon Scotorum: The snow of the birds. Great frost, so that the droves passed dry-footed the lakes of Erinn. FC,p.313
Other Irish annals also refer to a severe winter here.
The Ulster Annals add that there were heavy rains also. FS,p.374

1111 **Lightning** damage at Dundalk.
Annals of Loch Ce: Dun-da-lethghlas was burned by lightning. BC,I,p.101

1111 **Great Thunderstorm** at Ely.
Winchester Annals: In the same year was a most mighty tempest and terrible thunderstorm, in which the tower of the church at Ely fell and the church itself was set on fire. GH,p.44

1113 **Lightning** damage at Croagh Patrick, Ireland, on March 16.
Chronicon Scotorum: Ua Longain, Airchinnech of Ard-patrick, was burned by lightning on Cruach-Padraig. FC,p.315
Annals of Loch Ce add that thirty persons were killed. BC,I,p.103

1113 Robert de Monte has the following remark: In the month of May the corn and trees were so burnt up with the Holy Fire, that they were disappointed in the expectation of a crop. EP,p.688
It is somewhat difficult to get at the meaning intended by the phrase " Holy Fire ".

1114 **Bright sunshine** on March 7 in Lincolnshire.
Peter of Blois gives a very detailed account of the stone-laying ceremonies at Croyland Abbey in this year on the day of the holy virgins Perpetua and Felicitas. In the course of this account he says: . . . . .and all . . . considered it a great miracle that the Lord should smile upon so mighty an assemblage of people, the sun shining most serenely. . . . CT,p.249

1114 **Desiccation of the Thames and Medway** on October 10.
This remarkable event is alluded to by several contemporary writers, the earliest account being that of Simeon of Durham. Roger de Hoveden reproduces this account in the following words: In this year, the river which bears the name of Medway, for a distance of some miles, receded so far from its bed, on the sixth day before the ides of October, that in the very middle of it not even the smallest vessel could make the slightest way. On the same day, the river Thames was also sensible of a similar decrease; for between the bridge and the royal tower, and even under the bridge, so greatly was the water of the river diminished, that an innumerable multitude of men and boys forded it on foot, the water scarcely reaching to their knees. This ebb of the tide continued

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from the middle of the preceding night until dark on the following night. We have heard also on good authority that on the same day a similar low tide happened at Girvemuth and other places throughout England. ES,I,pp.204–5

Eadmer has a very similar account.
Matthew of Westminster and Matthew Paris, much later writers, for some reason give the date as March 29. Lowe, in giving a note of these events in his list separates the two rivers. He gives October 6 for the Medway and April 4 for the Thames. Short gives October 5 in one place and the 15th in another. There can be little doubt that the true date is October 10 and that both rivers were affected at the same time. G,p.12
Brooks and Glasspoole regard this year as one of the driest on record. As far as can be traced no writer earlier than Short actually mentions drought in this year. Simeon's statement that an abnormally low tide was experienced at Yarmouth and other places on the material date suggests the possibility that some disorganisation of the tides might be, at any rate partially, the cause of the phenomena, although that in itself would seem hardly sufficient to denude the Thames of all but twelve inches of water at London Bridge. It is certainly conceivable that a very low tide was accentuated by an abnormal lack of fresh water in the river.

1114 **Gale** in October, and a **great gale** on November 18.
Anglo-Saxon Chronicle: In this year were very great winds in the month of October: but it was excessively great in the night of the octave of St. Martin. AC,p.212

1114–1115 **Severe Winter.**
Anglo-Saxon Chronicle: In this year there was so severe a winter, with snow and with frost, that no man that then lived ever before remembered a severer: and through that there was an immense mortality of cattle. AC,p.213
Simeon of Durham adds that nearly all the bridges throughout England were broken by the ice. FG,p.594
The Winchester Annals say that the frost lasted 9 weeks: the Worcester Annals say 11 weeks.

The frost was apparently severe in Ireland also. *Chronicon Scotorum:* Very great sweeping snow, and frost, so that the droves were wont to pass dry-footed over the principal lakes of Erinn, and which killed a multitude of cattle, birds and men. FC,p.317 etc.
The Annals of Loch Ce definitely give the extent of the frost as "18th December to 15th February, vel paulo plus." BC,I,p.105

1115 Short mentions heavy snows on April 23. This appears to be quoted from Sigebert's continuator who refers to a heavy snow at Tournai on April 23, 1113.

1115 Luckombe refers to an overflow of the Severn in which 5,000 cattle were drowned besides human casualties. This appears not to be historical. From its position in Luckombe's list (p. 163) it seems that there is here a printer's error for 111 or or 115, but if either of those years is really intended then the event is quite devoid of historical foundation.

1115$\frac{7}{8}$ **Paraselenae** on January 27 (?)
Chronicle of Winchester: On the sixth of the kalends of February, being Wednesday, about the first hour of the day, two rings appeared about the moon, one near it, and the other at a greater distance. Within the inner circle, and on two parts of the sun a bright part was visible, as if there had been two suns, somewhat less bright than the larger sun: and on the top of each of these two narrower ones appeared two imperfect circles, in the shape of a ship, towards the eastern corner, opposite to the winter solstice. GJ,p.391
The writer appears to be in some confusion here. It was certainly still quite dark about the first hour on January 27, and a lunar halo or corona could have been observed. The sun did not rise for another two hours. A further difficulty is that although January 27 in 1115 was on Wednesday, the moon was almost new on that date and probably invisible.

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1115 Short allocates a severe hurricane to November 11 in 1113 or 1115. Probably he is alluding to the gale of November 18, 1114, mentioned in the Anglo-Saxon Chronicle, having overlooked the word " octave ". A,II,p.185

1116 Thunderstorm. See in 1117.

1116 **Tedious winter.**
Anglo-Saxon Chronicle : And this year also there was a very gloomy winter, both severe and long, for cattle and for all things. AC,p.213

Short, in alluding to this winter, adds " much frost and snow " apparently without any authority. A,I,p.111

1116 **A very wet year,** extending to February, 1117.
Anglo-Saxon Chronicle : This was a very grievous year and deficient in earth fruits, through the excessive rains that came immediately before August and greatly troubled and afflicted people until the coming of Candlemas. AC,p.213

Short adds that many bridges were broken down by the rains. There is no authority for this. He is probably misquoting from the events of 1114–5. A,II,p.204

1117 **Another wet year.**
Anglo-Saxon Chronicle : This was a very deficient year of corn, through the rains that ceased not almost all the year. AC,p.214

1117 **Severe thunderstorm** on March 25.
Bermondsey Annals : In this year on the eighth of the kalends of April was a very great thunderstorm . . . AL,p.432

1117 **Severe thunderstorms** on December 1.
Anglo-Saxon Chronicle : In this year also on the night of the kalends of December, there were most violent storms, with thunder and lightning, rain and hail. AC,p.214

A number of writers allude to this storm and also to the eclipse of the moon on the 10th of the same month. One or two annalists put the storm on the same day as the eclipse. Matthew of Westminster, a much later writer, erroneously gives kal. Novemb. instead of kal. Decemb. and some subsequent compilers have followed this date. Amongst these is Holinshed who mentions the storm twice, once under date November 1, 1116 and again on December 1, 1117. J,p.22

1117 **Aurora Borealis** on December 16.
Anglo-Saxon Chronicle : Also in the night of the XVIIth of the kalends of January the heaven was seen very red as if it were a conflagration. AC,p.214

Short quotes various phenomena on sundry dates in 1116 and 1117 which are clearly changes rung on the events recorded above in these two years.

1117 Heavy Rains. See in 1118.

1118 **Violent thunderstorm** about January 6.
Anglo-Saxon Chronicle : In this year, in the week of the Epiphany, there was one evening very great lightning, and a most immoderate thunderclap afterwards. AC,p.215

Short mentions this, and refers to thunderstorms in February also.

1118 **Gale** on December 21.
Anglo-Saxon Chronicle : Also in this year, on St. Thomas' mass, there was so violent a wind that no man who then lived remembered any greater : and that was everywhere seen, both in houses and also in trees. AC,p.215

Short allocates hurricanes etc. to February, November, and December of this year and accompanies some of them with hail and heavy rain. He is also very confused as to wet years about this time. In one place he alludes to " almost never ceasing rain " in 1117 and 1118. In another he has " severe floods " in 1118 or 1119. Probably these are misdated references to the wet years 1116 and 1117.

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1118 **Severe thunderstorm.**
The following account is given by Simeon of Durham, but unfortunately no day of the month is stated : In this year, a certain church having been dedicated at a town in England called Momerfield, by Geoffrey, Bishop of Hereford, as the people were returning home who had attended the dedication, after the serenity of the weather which had previously prevailed, on a sudden a most violent tempest arose, attended with thunder : some persons were struck by lightning and perished, while unable to get away from a place in which they had taken shelter. They were five in number, namely, three men and two women, one of which last was struck by a thunderbolt and killed while the other woman was shockingly smitten from the navel down to the soles of the feet, and perished, enveloped in flames : the men alone with difficulty escaped with their lives, while their five horses were destroyed by the lightning. FG,p.598

1119 Auroral displays are mentioned by Short as in this year but no authority has been traced. A,II,p.173

1119 Heavy Rains. See in 1118.

1120 **Loss of the White Ship** in the Channel on November 26.
There is divergence of opinion amongst early writers as to whether this ship was lost by stress of weather or by negligence of the ship's officers. John of Worcester, a contemporary writer, alludes to the " extraordinary calmness of the weather " but *Brut y Tywysogion*, a slightly later record, states, " the sea breakers were agitated by dreadful tempests ". BS,p.232 AS,p.147

Capgrave, in his *Liber de Illustribus Henricis* quotes the following stanza :

> The sons of Normandy—the French o'ercome—
> Hasten to English shores, but God forbids,
> And, while their fragile vessel skims the sea,
> Brings up a lowering tempest o'er the deep.
> Blindly they hurry on their devious track
> And dash on hidden rocks ; the raging waves
> Sweep the high decks—the royal seed goes down—
> Lost in the barren sea the world's renown. AR,p.63

1120 Gutch alludes to thunder and lightning from November 12 to 27. There is undoubtedly an error here for 1232 (q.v.). E,p.144

1121 Gales. See in 1122.

1121 **Destructive lightning** in Ossory.
Annals of Loch Ce : The steeple of Telach-nInmuinne, in Osraighe, was cleft by a thunderbolt : and a stone flew from it which killed a student in the church. BC,I,p.115

1121 **Gale** on December 5 in Ireland, damage at Armagh.
Annals of Loch Ce : A gale of wind occurred on the nones of December which knocked off the conical cap of the steeple of Ard-Macha, and caused a great destruction of trees throughout all Erinn. BC,I,p.115

1121–1122 Several compilers give details of the characters of these two years which appear to derive from some foreign source. Short says of 1121 or 1122, " all three spring months dry and hot " and would appear to be quoting the Magdeburg Chronicle. In another place, he says of 1121 or 1122 " notable frost followed by famine ". Later compilers quote one or other of these descriptions. Symons allocates the spring drought to 1122, and Brooks and Glasspoole follow him. No native writer appears to record dry weather in either of these years. R,p.151

1122 Baker quotes the Anglo-Saxon Chronicle as saying that the town of Gloucester was burnt by lightning on March 8 but there appears to be no such reference in that work. Stow says that Gloucester was burnt on that day but makes no reference to lightning. J,p.23

A.D.

1122 **Gale** about March 21.
Anglo-Saxon Chronicle: And afterwards, on the Tuesday after Palm Sunday, was a very violent wind on the day the XIth of the kalends of April. . . . AC,p.217
The Tuesday after Palm Sunday was XIIth kalends of April in this year.
Short refers to this event as in 1121 or 1122. A,II,p.185

1122 **Gale** on September 8, beginning at 9 a.m.
Anglo-Saxon Chronicle: On the day, the sixth of the ides of September, that was on St. Mary's mass day, there was a very great wind from the third hour of the day to the swart night. AC,p.217
Short seems to give this as on August 26, probably reading kalends instead of ides. A,I,p.113
He elsewhere gives the year as 1121 or 1122. A,II,p.185

1122 **Aurora borealis** on December 7.
Anglo-Saxon Chronicle: Afterwards there were many shipmen on the sea and on fresh water who said that they saw in the north-east a great and broad fire near the earth, which at once waxed in length up to the sky: and the sky separated into four parts, and fought against it as if it would quench it; but the fire nevertheless waxed up to the heavens. The fire they saw in the dawn, and it lasted so long till it was light over all. That was on the day the seventh of the ides of December. AC,p.217
Short dates this vaguely as after August 26, although in another place he has it on August 26, 1121 or 1122. A,II,p.173 etc.

1122 **Gale** in England on December 24.
Simeon of Durham: On the vigil of the Nativity of the Lord, an unusual wind blew down not only houses, but even towers built of stone. FG,p.605
The Anglo-Saxon Chronicle puts this event in 1121.
Walter de Hemingburgh in mentioning this event states that this destructive gale did not deter bishop Ralph of Durham from proceeding with the building of Norham castle. FZ,I,p.48

1123 The very heavy snows allocated by Short to this year do not appear to be mentioned in any native writer. A,II,p.189

1124 Many tempests and severe thunderstorms are noted by Short but no authority for the statement has been found in any earlier writer. A,II,p.183
Early writers like Simeon of Durham allude to famine and failures of crops in 1124 but there is no mention of meteorological conditions. FG,p.612
There is a very dubious account of heavy rain in Wales about this time in *Giraldus Cambrensis* in connexion with the burial of Caradoc, but his intention is chiefly to emphasise the miraculous incident that the pall covering the body remained dry despite the inundations of rain which fell. CA,p.80

1125 **Great Floods** on August 10.
Anglo-Saxon Chronicle: In this same year was so great a flood on St. Lawrence's mass day that many towns and men were drowned and bridges shattered, and corn and meadows totally destroyed, and famine and disease among men and cattle; and for all fruits there was so bad a season as there had not been for many years before. AC,p.222
Many early writers refer to this famine. The Margan Annals place the event in 1126 and say that it rained incessantly the whole summer. DP,p.12

1125 *Chronicon Petroburgense* mentions a severe thunderstorm with hail during this summer but gives no specific date. EC,p.1

1125 In Watson's list there is a severe winter allocated to this year. Lowe also cites it on the authority of Robert de Monte. (*See London, Quart. J. R. met. Soc., 27, 1901, p. 141.*) No native writer refers to this frost but it is mentioned by several continental historians. It appears to have been especially severe in France and the Netherlands and conceivably may have extended to the British Isles also.

1126 Wet weather. See in 1125.

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1128 Displays of parhelia mentioned by Short do not appear to be recorded by any earlier writer. A,II,p.177

1128 Short refers to a severe winter in this year with a great deal of snow at Easter. A number of later compilers follow him. The reference probably comes from some continental writer. No domestic historian mentions it. There may be confusion here with 1125. A,II,p.199

1129 **Hot year** in Ireland.
Chronicon Scotorum: Great heat in this year which destroyed the corn fields. FC,p.329
Annales Inisfalenses: A torrid summer this year in which the streams of Ireland were dried up. CV,I,p.109
Other Irish annals mention this drought. AN,p.22
Symons gives this year in his list of droughts and adds 1130 and 1131 as well. The source of the latter dates is Short but no authority for the statement has been found. All the Irish annals give 1130 as an extraordinarily fertile year. No English chroniclers refer to drought in any of the years 1129–31. N,p.25

1130 **Severe gale** (?).
Annals of Worcester: An unheard-of wind. GK,p.378
No day of the month is mentioned and no other chronicle appears to note this event. See in 1132.

1130 Drought. See in 1129.

1131 **Aurora Borealis** on January 11 (or 12).
Anglo-Saxon Chronicle: On a Monday night, at the first sleep, the heaven was, on the north side, all as though it were burning fire, so that all who saw it were so affrighted as they never were before. That was on the 3rd of the ides of January. AC,p.228
In 1131 the 3rd of the ides of January fell on a Sunday so that there may be an error of a day or a year.
Short, in quoting this event, gives very confused dates. In one place he has December 16, 1131 and in another December 26, 1131. A,I,p.116 etc.

1131 Drought. See in 1129.

1131 **Thunderstorm** damage at Athlone.
Annals of Clonmacnoise: A thunderbolt burnt the castle of Athlone. . . . BA,p.191

1132 **Severe gale** (?).
Annals of Bermondsey: And in the same year there was an unheard-of wind. AL,p.434
This is given without specific day of the month and is mentioned only in the Bermondsey annals. Possibly this gale is the same as that mentioned in the Annals of Worcester as in 1130 (q.v.) the source being some foreign chronicle.

1133 John of Worcester refers to the earthquakes of August 2 and 4 and gives an account, amongst other events, of certain ships dragging their anchors. Lowe is evidently referring to this event when he mentions " coastal inundations due to earthquake " in 1134. Brooks and Glasspoole give both 1134 and 1135 as years of storm floods. There can be no doubt that the earthquake mentioned by John took place in 1133 and that the storm floods, if any, were the " tidal " waves formed on that occasion. BS,pp.248, 249

1134 **Severe hailstorm** in Cashel.
Chronicon Scotorum: A shower of hailstones fell in Caisel so that horses could swim on the market place of Caisel. FC,p.335

1134 Storm floods. See in 1133.

1134 **Violent winds and severe thunderstorms.**
Annals of Winchester: A most vehement wind and terrible claps of thunder happened. GH,p.50
Precise dates are not given.

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1135 Drought. See in **1136**.

1135 **Gale** on October 27.
Robertus de Monte: In the same year in which King Henry was removed from this world, there occurred a terrible tempest of wind in Normandy and in many other countries: this happened in the vigil of the apostles Simon and Jude, shortly before his death. EQ,p.34
Roger of Wendover also records this storm. ET,I,p.482

1135 **Thunderstorm** early in December.
William of Malmesbury: Moreover, it is well known that on the day on which Stephen disembarked in England, there was, very early in the morning, contrary to the nature of winter in these countries, a terrible peal of thunder, with most dreadful lightning, so that the world seemed well nigh about to be dissolved. GD,pp.490–1
Short refers to this storm under date December **1**. Henry, however, did not die until December 1 and it was a day or two after that that Stephen landed in this country. A,I,p.**118**
Giraldus Cambrensis gives an account of a miraculous inundation in the Wye Valley on December **1**, but whether this is merely a prodigy on a par with other marvels which he recounts, or a definite case of heavy rains in that district, it is impossible to say. CA,p.17

1135 Storm floods. See in **1133**.

1136 **Gale** on January 5.
Waverley Annals: In the vigil of the Epiphany was a very great wind. GB,p.225

1136 **Hot and dry Summer.**
Gesta Stephani, in commenting on the failure of the springs in Exeter castle during its siege by Stephen, says: Some say that the springs failed in consequence of the extraordinary heat of the season. FH,p.340
The same source refers a little later to the failure of the springs in the Isle of Wight. FH,p.343
Nicholas Trivet records as in **1137**: At the same time, in Wales, from March to September, was an unprecedented drought, the streams and wells, and very many rivers, being dried up. FR,p.8
The compilers have given some or all of the years **1135**, **1136** and **1137** as the dry years. Short gives **1135** and **1137**, Walford gives **1135** to **1137**, and Lowe gives all three years separately. Trivet was writing two centuries after the event whereas the *Gesta Stephani* are strictly contemporary so that it is very probable that there was only one extremely dry year, namely **1136**. Hennig (p. 119) gives a good many continental authorities for droughts and hot summers extending from **1135** to **1138**. The truth probably is that there was a dry period with one exceptionally droughty year, **1136**.

1136 No earlier reference has been found for the " severe tempests, with thunder, lightning and hail " noted by Short. A,II,p.**185**

1137 Drought. See in **1136**.

1137 **Gale** in Ireland on May 15.
Annals of Loch Ce: A tremendous storm of wind on the day before the festival of the sprinkling of water, which prostrated many forests and churches in Erinn. BC,I,p.**137**

1137 **Parhelia.**
Thady Dowling: Three suns of a red color appeared whence came great wars and shedding of blood throughout all England, Wales and Ireland. BE,p.8
No earlier reference to this phenomenon than Dowling's (about 1600) has been found.

A.D.

1138 **Thick fog** in Northumberland on August 22.
John of Worcester, in his account of the Battle of the Standard, says: David . . . reaching the river Tees . . . he determined to surprise our troops, there being a thick fog in the morning of that day. BS,p.263

1138 **Aurora Borealis** on October 7.
Gesta Stephani: A large quarter of the heavens was seen to emit fiery sparks like a furnace, and balls of fire of wonderful brightness, like the sparks of live coals shot through the air in more places than one. FH,p.347
Later, referring to the same aurora, the author says: . . . having myself witnessed the hemisphere in a flame and seen with my own eyes luminous flakes floating densely in the blazing sky. FH,p.348
John of Worcester: On the seventh day of the month of October . . . the whole firmament towards the north appeared of a red colour, and rays of various hues were seen blended and flitting. BS,p.265

1140 **Violent whirlwind** at Welsburn in May.
John of Worcester: In these days a terrible event in the neighbouring diocese of Worcester was described by a reliable observer: for on the fourth day of the week before the octave of the Ascension about the ninth hour of the day, at a village which is known as Welsburn a very violent whirlwind sprang up, a hideous darkness extended from the earth to the sky, and the house of a priest whose name was Leoured, was violently shaken, and all of his outbuildings were thrown down and broken to pieces. Also the roof of the church was carried away and thrown down beyond the river Avon. And about 40 of the houses of the peasants were overturned in a similar way and rendered uninhabitable. Also there fell hailstones of the size of pigeons' eggs, by the blows of which a woman was killed. BS,p.281
Gervase of Canterbury, a somewhat later writer, gives a similar account of this event but dates it in 1141. CD,I,p.119

1141 **Thunderstorms** on February 1.
Ordericus Vitalis: . . . a great storm of hail and rain fell in western parts, that is, in France and Britain, and terrible claps of thunder were heard, accompanied by vivid flashes of lightning. MZ,IV,p.218

1141 **Floods** in the Trent valley in February.
William of Malmesbury: At length, on the day of the Purification of the blessed Mary, they arrived at the river flowing between the two armies, called the Trent, which from its springs, together with floods of rain, had risen so high that it could not possibly be forded. GD,p.515

1141 **Wet weather** on March 2.
William of Malmesbury: They assembled, therefore, on the third Sunday in Lent, a dark day and rainy, as though the fates would portend a woeful change in this affair. GD,p.517

1141 Whirlwind. See in 1140.

1141 **Thunderstorm** at Winchester on August 2.
John of Worcester: And the very instant it caught fire, three awful claps of loud thunder sounded, as it were, from heaven. BS,p.283
This occurred during the destruction of a large part of Winchester by fire.

A.D.

1141 **Very cold weather with snow** in December.
Henry of Huntingdon: The same year the King besieged the Empress at Oxford from after Michaelmas to Advent. At the end of which, not long before Christmas, the Empress escaped across the Thames, which was then frozen over, and, wrapped in a white cloak, deceived the eyes of the besiegers, dazzled by the reflection of the snow. CO,p.281

Gesta Stephani give a very full account of this celebrated incident. They say: The ground was white with snow, which lay deep over the whole country, the rivers were frozen hard, . . . AP,p.395

Hardyng's account of the incident is as follows:

Vpon the frost in the wynter season,
In her smocke alone with hir vncle dere,
That none hir knewe of theim without the towne,
So like hir smocke and the snowe was in feer. CM,p.250

Many writers refer to this episode. Apart from this cold weather in December, the winter 1141–2 does not seem to have been especially rigorous. Short's description, " a long, rigorous, tempestuous, frosty, and snowy winter " is probably entirely fanciful. A,I,p.119

1142 **Gale** in the English Channel near the end of June.
William of Malmesbury: There, soon after the festival of St. John, committing himself by the grace of God to the ocean, with such vessels as he then possessed, he weighed anchor. When they were about mid-sea, a tempest arising, all except two were dispersed; some were driven back, and some carried beyond their destination. GD,p.532

1143 **Very cold weather** in January and February.
Simeon of Durham's Continuator in giving an account of the atrocities committed by the soldiers of William Cumin, records: . . . others of them they plunged into the bed of the river in the depth of winter, after having broken the ice with which it was covered: and, having tied ropes about them, they alternately dragged them out of it and thrust them back again . . . The feet of some they thrust through holes made in the wall, and thus exposed their naked bodies to the extremity of the cold, leaving them in this misery all the night long. FF,p.725

Short gives 1142–3 as a very severe winter and mentions deep snows and the freezing of the Thames. The latter particulars, however, appear to relate to the incidents of December, 1141. A,I,p.119

1143 **Severe gale (?).**
The Winchester Annals: A very great wind throughout all England. AD,p.53

Not mentioned in any other annals.

1144 Short states " a most droughty harvest; no rain till 24th June, and none for some time after." No source has been found for these details, which are probably taken from a foreign chronicle. A number of native writers record a severe famine about this time, but no references to drought are to be found. Symons and later compilers have followed Short. A,I,p.119

1144 **Marine inundations.**
Chronicon Petroburgense: The sea overflowed and did immense damage. EC,p.2

1146 **Gale** on January 19.
Annals of Margan: A very great wind happened on the 14th of the calends of February, despoiling houses and casting down oaks. DP,p.14

A.D.

1146 **Violent gale** in Ireland on December 3.
Four Masters : A great tempest arose on the 3rd day of December which destroyed many woods throughout Ireland. Six trees of Columkille were uprooted in Derry. Several men were suffocated and killed in the church. BV,p.759

1147 **Lightning damage** at Duleck, Co. Meath.
Four Masters : Lightning struck the belfry of Daimhlaig-Chiarain and broke down the topmost part of it. BV,p.759

1147 " Tempest with violent torrent " is mentioned by Short in this year but no earlier reference has been traced. A similar remark must be made in respect of the " severe thunderstorm after four days hurricane " which is allocated to 1148. A,II,pp.185,183

1147 Baker mentions great heat in August, quoting Roger de Hoveden, but there does not appear to be any reference to it in that author.

1149 **Lightning damage** at Clonmacnoise in January.
Chronicon Scotorum : Thunder and lightning came in January, and the lightning took effect upon the yew tree of Ciaran so that it was through the power of men that it was extinguished ; and it killed 113 sheep under the yew. FC,p.347
This yew was over 600 years old.

1149 **Whirlwind.**
Annals of Waverley : In the same year a horrible whirlwind arose, which overturned houses, and destroyed forests and thickets, and in which devils in the likeness of repulsive animals fought together. GB,p.233
This is probably the original of Short's " five tempests, with whirlwind, thunder, lightning and hail ". A,II,p.185

1149 The wet summer and harvest mentioned by Short appears to be taken from the *Chronicon Magdeburgense.* He also says of this year " winter dry and warmest to 1st April, then coldest to 15th May ". The origin of these details has not been traced. A,I,p.120 A,II,p.201
Symons evidently follows this in allocating a drought to this year.

1149–1150 **Severe Winter.**
Robert de Monte : For three successive months the winter was so exceedingly severe, that the extremity of cold injured the limbs of many persons : and this continued through the greater part of the time when agricultural operations are carried on in the spring ; in consequence of which a great scarcity followed. EP,p.726
Ralph of Coggeshall : In this time the frost lasted from the 4th of the ides of December until the 11th of the calends of March. The Thames was frozen and was crossed on foot and on horseback. FG,p.13
Unfortunately Ralph rubricates this entry 1150, 1151, 1152 ! Many writers refer to this frost, some dating it 1149 and others 1150. There is general agreement that it was in the 15th Stephen and 1149–50 is the most likely date. The Bermondsey annals record the event under the date 15th Stephen, and then record it again, in identical words, in the 17th Stephen, evidently by an error of the transcriber of the MS. AL,p.438

1151 **Stormy winter** in Ireland.
Four Masters : Very tempestuous, boisterous, and portentous winter, with great overflowings of the sea. BV,p.774

1151 **Wet Year.**
Waverley Annals : A great famine, and the seed perished by reason of the great abundance of rain. GB,p.234
Short refers to this under date 1151 or 1152. Walford, however, says of 1151 " dry and hot, harvest early and good ", citing Short ! This 1151 is almost certainly a misprint for 1251. A,II,p.190 K,p.47

A.D.

1152 **Heavy rains** in the early part of the year.
Henry of Huntingdon, describing the invasion of the Duke of Normandy, records: The day after his arrival . . . the floodgates of heaven were opened and heavy rain drove in their faces with violent gusts of wind and severe cold . . . CO,p.291
Later, he writes: The stream was so flooded by the torrents of rain and snow. . . . CO,p.291

1152 There seems considerable confusion in the compilations as to the character of this year. Short says "The great and excessive rains which fell this summer . . ." A,I,p.120 under both 1151 and 1152. There is warrant for ascribing this character to the year 1151 and it seems probable that there was a good deal of rain in southern England in the early months of 1152, but no record occurs as to the summer of 1152. Possibly Short is using a foreign source in both cases. Symons, however, gives for 1152, "from March to harvest, neither rain nor dew, and the greatest heat". N,p.25 Brooks and Glasspoole rightly suggest that there is an error here for 1252. The description is from Short and relates to 1252. R,p.152

1153 **Boisterous weather** in southern England early in the year.
Gervase of Canterbury gives an account of the fighting between Stephen and Henry of Anjou around Malmesbury and mentions heavy rains, very cold weather and violent winds. CD,I,p.152

1154 Short in several places refers to heavy rains with thunderstorms in this year but no earlier source of these events has been located. A,II,p.190
The cross seen in the moon shortly before Stephen's death and mentioned by Seller is probably apocryphal. FD,p.249

1154 **Boisterous winds** in the Channel in November and December.
Henry of Huntingdon, in describing the arrival of Henry II after the death of Stephen on October 25, states: Hindered, however, by contrary winds and a stormy sea, it was not till six days before Christmas . . . he landed in the New Forest. CO,p.296
Some writers put the landing of Henry as about December 8.

1154–1155 A number of compilers refer to a severe winter but they are probably quoting a foreign source. Lowe definitely cites the *Chronicon Magdeburgensis*. No native writer mentions this rigorous winter. H,p.24

1156 **Solar halo** on May 30 (?).
Robert de Monte: On Wednesday, the third of the calends of June, being the vigil of our Lord's Ascension, about mid-day, a very broad circle, of a fiery blue color, appeared for nearly the space of half an hour round the sun. EP,p.741
There is some confusion of dates here as the vigil of Ascension was on May 23. In no year about this time did Ascension day fall as late as May 31. Possibly Robert intended to write "octave", and "vigil" is a slip of the pen.

1156 **Many thunderstorms** in July.
Annals of Waverley: In this year lightnings and tempests were frequent in the month of July. GB,p.237
Short says these storms followed three parhelia. Possibly the latter is the solar phenomenon referred to above. A,II,p.176

1156 **Heavy rains** in August.
Trivet: About the middle of the month of August, moreover, there happened unusual rains which hindered the gathering of the harvest and the subsequent sowing of seed: these floods, by their long duration, caused many towers, churches, and old buildings in Normandy and England to fall down. FR,p.41
Short mentions these floods and dates their commencement definitely on August 11. A,I,p.121

A.D.

1156 **Severe winter** in Ireland.
Under this date the Four Masters have the following account: A great snow and severe frost in winter this year, so that the lakes and rivers of Ireland were frozen over. Such was the intensity of the frost that Roderic O'Conor transported his ships and fleets across the ice from the margin of the shores of Galvia to Rinduin. Likewise numbers of large birds of prey were killed in Ireland by the intensity of the snow and frost. BV,p.791

No mention of this severe winter has been found in any of the earlier Irish annals and it does not occur in the British chronicles. One or two references in Easton's list shew that there was rather a hard winter in Germany but there is no reference to the British Isles.

1156 **Lunar haloes** (?) in October.
Bermondsey Annals: In this year also for several nights in the month of October the sign of the cross appeared in the moon. AL,p.440

Not improbably there is an error of a year here and the allusion is to the lunar eclipse of October 19, 1157. Fabyan, a much later writer, places " a redde crosse " in the moon in October 1157. BP,p.273

1157 Low state of the Thames. See in 1158.

1157 Short refers to severe floods and tempests this year, notably in June and July. No earlier reference has been found. A,II,p.185 etc.

1157 Fabyan refers to parhelic phenomena in October in addition to the lunar event already mentioned. There seems no earlier note of these parhelia. BP,p.273

1158 **Desiccation of the Thames,** (?) due to earthquake.
Gervase of Canterbury: In the same year there was an earthquake in several places in England and the river Thames at London was waterless, and it was crossed dryshod. CD.I.p.166

Some compilers quote this event as in 1157.

1158 **Aurora** in Ireland on August 28.
Annals of Clonmacnoise: There was a great mount of fier seen in the firmament this yeare, westerly of Tea Doynn in Mounster, it was bigger then St. Patricks mount, which dispersed in severall showers of small sparkles of fier without doeing any hurt, this was upon the Eave of St. John in Autumne. BA,p.204

1158 **Heavy rains** in autumn in Ireland.
Four Masters: Great rains in the time of autumn by reason of which there were floods of the rivers of the island of Subha in Mount Fuadh in which 23 men of the island were drowned. BV,p.798

1161 The " sign of the cross " in the moon which Walter of Coventry records refers, no doubt, to one of the two total lunar eclipses of this year (February 12 and August 7).

1161 Severe thunderstorms, with casualties, are allocated to this year by Short but no original reference has been traced. Possibly 1163 is meant. A,II,p.183

1162 Brooks and Glasspoole refer to a storm flood in this year but no reference to it has been found in any early native historian. R,p.96

1163 **Severe thunderstorms.**
Annals of Bermondsey: In this year lightning struck, by reason of which, many men and beasts perished, and houses were burnt. AL,p.441

1164 **Heavy rain** in Wales.
Brut y Tywysogion, in describing Henry II's wars with Wales states: . . . and there the king encamped, with his advanced troops, in the mountains of Berwyn. And after remaining there for a few days, he was overtaken by a dreadful tempest of the sky, and extraordinary torrents of rain. AS,p.202

A.D.

Perhaps this is the event alluded to by Giraldus Cambrensis: . . . he was compelled, by a sudden and violent fall of rain, to retreat with his army. CA,p.135

Giraldus' editor, however, places this in 1165.

1164 **Parhelia** on September 18.

Wykes: In the same year on the 14th of the calends of October about the ninth hour were seen in the sky three various circles of four colors like rainbows: after they disappeared two suns appeared. GL,p.33

Short gives September 20 in his list and also alludes to parhelia in July. A,II,pp.176–7

1165 **Thunderstorms** in Yorkshire in August, notably at Scarborough.

Chronicle of Melrose: There was a great tempest in the province of York during that same month. Many people saw the old enemy taking the lead in that tempest: he was in the form of a black horse of large size, and always kept hurrying towards the sea, while he was followed by thunder and lightning, and fearful noises and destructive hail. The footprints of this accursed horse were of a very enormous size, especially on the hill near the town of Scardeburch, from which he gave a leap into the sea; and here for a whole year afterwards, they were plainly visible, the impression of each foot being deeply graven in the earth. The same tempest destroyed a mill on the river Severn, with its inhabitants, with the exception of a single monk . . . DT,p.130

1165 Heavy rain. See in 1164.

1167 **Heavy snows.**

Annals of Winchester: In this year moreover was a very great snow. GH,p.59

1168 **Bolide.**

Trivet: An earthquake took place on the thirteenth of the calends of March and a globe of fire was seen moving in the air. FR,p.61

1169 According to Gutch, who quotes the *Chronicon Nannetensis*, there was violent lightning in this year. No such reference occurs in any domestic historian. E,p.144

1170 **Stormy weather** in the Channel on March 2 and 3.

Benedict of Peterborough: . . . he crossed over to England and landed at Portsmouth on the 5th of the nones of March, being Tuesday. In this passage of the king, God troubled him with a great and horrible tempest from the hour of midnight until the ninth hour of the following day. AK,I,pp.4–5

Continuing his detailed account of this event, Benedict gives a list of the notable casualties during the gale. Over 400 people of Henry II's retinue were drowned.

1170 **Marine inundations** in March.

Robert de Monte: During Lent, the sea passed over its usual limits, in consequence of which the lands on the coast which had been sown with corn were destroyed in many places, the sea having swept over them. This washing away of the land exposed to view in England the bones of a giant, whose body is reported to gave been thirty feet long. EP,p.773

Short gives this as in 1171. A,II,p.196

1170? A MS. account of the miracles of St. Alban contains a reference to a wet season in the third year of the abbacy of Simon, that is, about 1170. (MS. Cott. Faust. B iv, ff. 19–39b.)

Giraldus Cambrensis has an account, vaguely about this time, of an expedition to the "white monastery of Powisland" in which he refers to an overflowing inundation of rain. CB,p.176

A.D.

1170 **Aurora** (?) seen in Ireland.
Annals of Boyle : Near this time was seen a bow of burning fire. AN,p.28

1170 **Thunderstorms** on December 28.
Lycosthenes : On the calends of January there was heard frequent thunder in various places, sacred and profane gods being struck by lightning. And in the same year and on the day following St. Thomas of Canterbury . . . received the crown of martyrdom. DN,p.420
This is dated 1173 by Lycosthenes. Thomas à Becket, however, died on December 29, 1170 and if the thunderstorms occurred on the day before they would date December 28. Several accounts of the death of Thomas mention thunderstorms shortly before that event.

1171 Marine floods. See in 1170.

1171 **Heavy rain** at St. Davids on September 29.
Brut y Tywysogion : . . . and there was heavy rain on that day, which was Michaelmas day. . . . AS,p.215
Later, this chronicle adds : . . . for it was a misty season and then scarcely any ripe corn could be had in any part of Wales. AS,p.217
The season referred to is September and October.

1171 **Heavy rain** in Ireland in October.
Benedict of Peterborough in describing the visit of Henry II to Ireland in the middle of October and the contumacy of the King of Connaught, says : And the King of England could by no means finish the war during the winter, by reason of the overflowing of the waters, and the steepness of the mountains. . . . AK,I,p.26
The Inisfall Annals say of 1172 : Great floods in this year.

1171 **Many thunderstorms** on December 24.
Roger of Wendover : In the night of Christmas day were heard thunders, throughout England, Ireland and Gaul, sudden and terrible, inviting mankind from divers parts to come and witness the new miracles of St. Thomas the martyr. . . . ET,II,p.21
Many writers and annalists refer to storms at Christmas 1171 or 1172. Ralph of Coggeshall, who was contemporary with Roger gives 1172 as the date. Probably the trouble is due to the fact that the New Year began on Christmas Day and the year given will be 1171 or 1172 according as the storms took place late in the evening of December 24, or early in the morning of the 25th. The term " night of a feast " usually signifies the eve of that feast, so that the true date is in all probability December 24, 1171.
The Winchester Annals give the following record in 1172 : A certain bishop Roger by stroke of lightning perished in Andover church in the night of the birth of our Lord. Many thunders were heard this year. GH,p.60
Matthew of Westminster, a later writer, gives thunder at Christmas in both years 1171 and 1172 presumably by including accounts from various sources. The DQ,p.250
Melrose Chronicle does not refer to thunder but says there was a gale on December 28. DT,p.134

1172 **Tempestuous winter** in the Irish Sea.
Brut y Tywysogion : . . . there was a dreadful mortality among the army that was with the king in Ireland. . . . because of the miseries of the famine, the ships with merchandise not being able to sail to them during the winter, owing to the tempestuous violence of the Irish Sea. AS,p.217

1172 Thunderstorms and hurricanes with lightning are mentioned in this year in Short. No earlier notice has been traced. Possibly the storms of December 1171 are intended. A,II,p.183

A.D.

1172 **Parhelia.**
Chronicon Petroburgensis: In this year two moons were seen in the heavens. EC,p.4
In one place Short says 1172 or 1173, and in another, 1172 and 1173. A,I,p.174, etc.

1172 Floods in Ireland. See in 1171.

1173 **Aurora** seen at Londonderry on February 10.
Four Masters: A great miracle was performed on the night of his death, viz., the dark night became bright from dusk till morning, and it appeared to the inhabitants that the adjacent parts of the globe were illuminated; and a large body of fire moved over the town and remained in the south east; and all the people rose from their beds, for they thought it was the day; and it continued so eastward along the sea. BW,p.6
This aurora was also seen in England. Gervase of Canterbury records: On the 4th of the ides of February there appeared some time after midnight a wonderful sign in the sky. For a certain red color was seen in the air in the northerly regions between east and west. White rays also were traversing this redness, now slender like spears, now broad like tables, and now here and now there as if erected upwards from earth to heaven. The aforesaid white rays were like beams of the sun penetrating the thickest clouds. CD,I,p.241
The Scottish annalist Fordun also mentions the phenomenon but he is probably deriving it from the English writers. BT,p.263
Short mentions this aurora and adds others in November and December; no authority has been found for these. A,II,p.176

1173 Parhelia phenomena. See in 1172.

1173 **Fine spring with violent thunderstorms** on May 17.
Brut y Tywysogion: . . . there was an extraordinary season of fine weather throughout the winter and spring, and the month of May until Ascension Thursday. And on that day there arose a most violent storm in the sky of thunder and lightning, and whirlwind, and showers of hail and rain, which broke the branches of the timber, and threw the trees to the ground. AS,p.221

1173 **Thunderstorm** on August 16.
Chronicle of Melrose: There was a fearful thunderstorm on the seventeenth of the calends of September. DT,p 135

1173 Thunderstorms at Christmas. See in 1170.

1174 **Heavy weather in the Channel** in mid-June and July.
Roger of Wendover gives an account of the crossing of the Channel in unfavourable weather by Henry II. The date is about June 10. Shortly after, the fleet of Henry junior was dispersed by bad weather about June 16. ET,II,p.29
The king's forces were again incommoded by the weather in the Channel about July 7. Roger de Hoveden says: . . . the king's son and Philip, earl of Flanders, were still detained at Gravelines, as the wind was contrary, and they were unable to cross over. On this, the king of England came to Barbeflet. . . . and, praised be the name of the Lord! as it pleased the Lord, so did it come to pass, who by his powerful might changed the wind to a favorable quarter. . . . ES,I,p.380

1174 **Foggy weather** on the Scottish border on July 13.
William of Newburgh: . . . and while they were advancing it is said that so dense a fog covered them that they hardly knew whither they went. . . . While they were thus marching onward, the fog cleared away suddenly, and they saw the castle of Alnwick before them. . . . GF,p.492

A.D.

1174 **Strong winds** at Canterbury on September 5.

Gervase of Canterbury gives an account of the burning of Canterbury Cathedral on September 5. There are several references in the narrative to the strong winds which fanned the flames. CD,pp.3–4

1174 **Aurora** on November 4.

Ralph of Diss: The day before the nones of November, about midnight, for the space of an hour or more, the whole face of the sky towards the north part was seen to be suffused with a red color like blood. EJ,I,p.396

1174 **A wet year (?).**

Ralph of Diss refers to widespread gastric catarrh in this year "ex aeris nebulosa corruptione". EJ,I,p.387

Short refers to this year as one of universal rains but without citing any authority. A,II,p.191

1176 **Severe winter.**

Robert de Monte: The frost and snow continued from the Nativity of the Lord until the Purification of the blessed Mary. EP,p.787

The dates apparently refer to December 25, 1175 to February 2, 1176. Robert does not specify whether the frost was severe both in Normandy and England. Nicholas Trivet is apparently the only native writer to mention it. He is a century and a half later and is almost certainly quoting Robert de Monte. Easton can only cite Holinshed's account and gives 1176–7 as the date. Sir Richard Gregory refers to it quoting Giraldus Cambrensis, but such a reference has not been located in Giraldus' works. FR,p.82

1176 **Marine floods** in Lincolnshire on January 7.

William of Newburgh: In the same year in which the above mentioned cardinal came to England, the ocean, as if irritated at the sons of men, rose higher than usual, broke through the dykes of Holland, which of old had been raised against the tempestuous force of the waves, and broke into that low and flat country on the 7th of the ides of January, drowning almost all the cattle as well as a multitude of men: the rest were with difficulty saved by climbing trees, or getting on the tops of houses. After about two days, when the fury of the waves were satiated, the sea returned to its bounds. . . . GF,p.500

Later chronicles put this in 1177. Possibly the floods referred to by other writers in 1178 are the same as these.

1176 **Severe thunderstorms.**

Ralph of Coggeshall: There happened thunders, lightnings, and great tempests, and hail mixed with fire, the stones of which were larger than hens' eggs. EG,p.18

1176 **Gale** on April 3.

Robert de Monte: On Easter eve, about midday, there was a high wind, which overthrew houses and uprooted trees. EP,p.787

This may possibly relate to Normandy only.

1177 Marine floods. See in 1176.

1177 **Red rain** in the Isle of Wight on June 19.

Benedict of Peterborough: Meanwhile, on the Sunday after Pentecost, that is the 13th of the calends of July and the feast of the saints Gervasius and Protasius, martyrs, a bloody shower fell in the Isle of Wight, almost for two whole hours: so that linen clothes which were hung to dry upon the hedges were sprinkled with this dew of blood, and became as though dipped in a vessel full of blood. AK,I,p.177

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Short mentions this event in several places with dates 1176, 1177 and 1178. In one of these cases (1178) he adds that the phenomenon was followed by large hail. A,II,p.180
Holinshed, in alluding to this discoloured rain, improves the record by stating that it lasted two days. Baker, who quotes both Holinshed and Roger de Hoveden, also makes the latter writer say two days. Roger, however, definitely says "per duas horas integras". J,p.28 ES,I,p.457

1177 **Drought** in summer and autumn.
Robert de Monte: In summer and autumn the drought was excessive, in consequence of which the greater part of the seed-corn, the crops and the grass perished: and the corn and the grapes ripened sooner than usual. EP,p.789
Possibly Robert may mean this to refer to Normandy only. Trivet reproduces Robert's account. FR,p.86
Short says of 1177 "all harvest sore rains!" A,II,p.191

1177 **Severe storm with large hail** on July 22.
Annals of Waverley: Thunder destroyed crops and killed birds on the day of St. Mary Magdalene. GB,p.241
A much later chronicle, *Eulogium Historiarum*, gives more details: In this year a tempest of hail on the day of St. Mary Magdalene destroyed corn and pasture, broke down trees, killed birds and four-footed beasts by its blows, and suffocated very many men. BN,p.90

1177 **Storm** in the English Channel on September 27.
Benedict of Peterborough: Geoffrey . . . ploughing the sea between England and Normandy, a violent tempestuous sea carried away, broke up, destroyed and submerged his ship. Drowned in it were the said Geoffrey, the king's chancellor, Robert, chief master of the scholars at York. . . . AK,I,p.195
Then follows a long list of the casualties.

1177 **Aurora** on November 29 with **stormy weather.**
Gervase of Canterbury: In this year, on the vigil of St. Andrew the Apostle, before the first hour, there appeared in Kent a certain redness like burning flames flying in the movements of the wind. Indeed some affirmed very plainly that fiery dragons with twisted heads were seen at the same hour. Many said this sign, either dragons or burning flames or redness, appeared over the whole of England. CD,I,p.274
Robert de Monte: On the night of St. Andrew the wind was very stormy: and on that festival, as well as on the vigil we have mentioned, the moon appeared marvellously large in the morning, rising in the east and proceeding towards the west. . . . EP,p.790
Gervase also mentions this stormy weather, but as on December 1: On the third day (i.e., after the aurora) the wind blew very strongly in the aforesaid region, the force of which was very damaging to buildings, trees, and roofs of buildings, and the sheets of lead on the churches were folded up like small garments. CD,I,p.274
Ralph of Diss, a contemporary writer, referring generally to the end of 1177 says: The following winter was most tempestuous: many ships were sunk and thousands of men perished in the floods. HX,I,p.422
A further note on these floods will be found in 1178.
Short mentions these phenomena in various places, once with the wrong date, November 3. A,II,p.173

1178 **Severe marine floods** on January 8.
Ralph of Diss: In coast towns, the highest walls built of turves, were thrown down by the inundations of the sea, the greatest being towards the North. The inhabitants and the sheep and cattle in many places were overwhelmed by the floods on the sixth of the ides of January.

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He also says : A very great snow. EJ,I,p.424

The Chester Annals are clearly referring to these floods which they specifically allocate to Lincolnshire : The sea overflowed in Holland in the middle of the night on the 2nd of the ides of January. Men and cattle were drowned and much ill done. AV,p.26

Trivet says of the winter 1177–8 : As in the summer (i.e. of 1177) there was great drought, so in winter there was a great flood of waters. FR,p.87

Gervase of Canterbury tells how the rebuilding of Canterbury cathedral early in the year 1178 was continually held up by the rains. CD,I,p.21

See a note in 1176.

1178 **Lunar phenomena** on June 18.

Gervase of Canterbury gives a long account of extraordinary lunar phenomena. Since the moon was almost new on the date in question it is very difficult to rationalise the account. CD,I,p.276

Holinshed gives an account of these phenomena. V,p.28

1178 **Hailstones** about June 24.

Boece : Neirby this tyme now that ȝe heir me mene,
In Albione greit wonderis than wes sene.
At midsomer, as my author did tell,
Of hailstanis ane felloun schour that fell ;
Quhilk stonis war of so greit quantitie,
Bayth man and beist, bot gif my author lie,
Beand thairout als lang as it did lest,
Throw violence of that schour wer oprest. AM,III,p.34

Boece definitely allocates this to the year in which there was an eclipse of the sun on September 13, i.e. to 1178.

1178 **Eclipse of the sun** on September 13.

Gervase of Canterbury : In the month of September in the vigil of the holy Cross, being the fourth day of the week and 27th of the moon, about the sixth hour, there was an eclipse of the sun in Kent, not everywhere, but in particular places. . . . Truly the sky for a short while was hidden by clouds . . . Meanwhile in divers places, the sky was tinted with various colors, namely red, yellow, green and grey. CD,I,p.277

When Gervase says the eclipse was " non universaliter, sed particulariter " he doubtless means that it was seen only in certain parts of the county, the sky being cloudy.

Boece is evidently referring to the event although he says it was " withoutin clippis " :

Of September efter that this wes done,
In the idus neirby the hour of none,
Of tua houris the space it did induir,
The sone it wes als mirk and als obscuir,
Bayth blak and dym withoutin ony licht,
As it had bene about the mirk midnycht.
Withoutin clippis this aduenture befell ;
Quhat was the caus wes no man than culd tell.
Of Eborak all in the dyocie,
So aufull thunder fell doun fra the sky,
And fyre-flaucht als, as my author did sa,
The quhilk distroyit mony fair abba,
Into that tyme without ony refuge :
Quhat wes the caus I leif to ȝow till judge. AM,III,p.34

No earlier authority than Boece has been found for the thunderstorms in the diocese of York which he mentions.

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1178 **Severe gale** at Derry.
Annals of Loch Ce : There was a great wind in this year, by which many trees were uprooted, and many churches laid prostrate. One hundred and twenty trees fell at Derry Columkille. BW,p.12

1178 Drought in Ireland. See in **1191**.

1179 **Thunderstorm** in Kent on January 7.
Gervase of Canterbury : There happened great lightning and terrible thunder, strong wind and hail in Kent at dawn on the day next after the Epiphany of the Lord. DJ,I,p.278
Short gives this variously as on January 5, 1179 and 1180.

1179 **Very unseasonable** in the early part of the year.
Ralph of Diss : After the great dryness of the winter, after the attacks of the bitter hoar frost, after the north wind blowing all the time until spring, after lightnings running about the middle regions from the western parts to the eastern, suddenly a gentle shower on the ides of June watered the face of the fields. . . . EJ,I,p.436

1179 According to Short there was a hurricane with thunder, lightning and hail on June 5, but no earlier authority has been found. Possibly an error for January 5 (q.v.). A,II,p.188

1179 **Severe thunderstorm** in Scotland on August 24.
Chronicle of Melrose : On the day of Bartholomew the Apostle there was a severe storm of thunder and lightning throughout the whole of Helielandeschire. DT,p.137
Perhaps this is the severe thunderstorm with hurricane which Short places in this year. A,II,p.183

1180 **Thunderstorms.** See in **1179**.

1180 **Rigorous winter,** with frost from January 1 to February 2.
Robert de Monte : There was a severe winter and the snow which fell about the octave of the Nativity of the Lord remained until the Purification of the blessed Mary. EP,p.793
It is not clear that this hard weather was general both in Normandy and Britain. Robert adds later " It was followed by a great inundation of waters especially at the town of Mans, etc." Possibly, therefore, the heavy snowfall was in Normandy alone.
A number of writers give 1179–80 as a severe winter with floods, clearly deriving from de Monte's account.

1180 Gervase of Canterbury gives an account of a conflagration at Canterbury on May 22, in which the flames were spread by the winds. CD,I,p.294

1180 **Stormy weather** in October and November.
John de Oxenedes : There were very great perils at sea from the festival of St. Michael to the feast of St. Andrew, in which countless men and women perished. CY,p.68

1181 The sea floods on January 7 in this year which John de Oxenedes mentions are no doubt those described by other writers as in 1178. (q.v.). CY,p.68

1181 **Thunderstorms, etc., and floods.**
Chronicle of Melrose : In many parts throughout England there were great storms of thunder and lightning, and tempests of wind and floods of waters. DT,p.138

1183 **Severe thunderstorm** on July 17.
Margan Annals : Thunder and horrible lightnings occurred on the 16th of the calends of August. DP,p.17
This is allocated to 1182 by Short. A,I,p.128

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1184 **Thunderstorm** on February 1.
Annals of Oseney : On the kalends of the same month, at the same hour of the night, thunder was heard. DZ,p.39

1184 **Severe thunderstorms** at Loch Ce on February 17.
Annals of Loch Ce : The Rock of Loch Ce was burnt by lightning, i.e., the very magnificent, kingly residence of Mumter-Maelruanaidh. . . . where six score, or seven score, of distinguished persons were destroyed, along with fifteen men of the race of kings and chieftains (here follows a list of the casualties) . . . and a countless destruction besides of good men ; and every one of them who was not burnt was drowned in this tumultuous consternation, in the entrance of the palace, so that there escaped not alive therefrom but Conchobar MacDiarmada with a very small number of the multitude of his people. On the Friday after Shrovetide this event occurred. BC,p.167

1185 **Thunderstorm** on May 1.
Roger de Hoveden : In the meantime, on the calends of May, being the day of the Apostles St. Philip and St. James, about midday, a total eclipse of the sun was seen, which was followed by thunder and lightning and a mighty tempest ; from the effects of which men and animals perished ; and many houses, being set on fire thereby, were burned to the ground. ES,II,p.51

1185 Seller states that the " abbey of Glasenbury was consumed by lightning ". This appears to be unhistorical. FD,p.262

1185 Short refers to hurricanes with thunder and lightning in December but no earlier authority has been traced. A,II,p.188

1187 The floods and inundations mentioned by Short appear to be taken from a foreign source and not to refer to Britain. A,II,p.196

1188 **Stormy weather** in the Channel on July 10 and 11.
Gervase of Canterbury, referring to a visit of Henry II to France in this year, states : But while on Sunday, the 6th of the ides of July, a favorable breeze furrowed the sea, at the eleventh hour there arose a violent tempest of wind and heavy rain, and lightning and thunder, and hail the size of pigeons' eggs. And so this very fierce tempest agitated the night, casting them half dead on land the next day. CD,I,p.433
Bentley in his list gives the date of this storm as in 1189. This date is impossible, however, as Henry died on July 6, 1189.

1188 **Unusual optical phenomena** seen at Dunstable on August 9.
A great number of early writers refer to these phenomena which seem very difficult to rationalise. The earliest of the contemporary accounts seems to be that of Benedict of Peterborough : In the meantime a certain miracle happened in England, for on the vigil of the blessed Laurence, martyr, being the third day of the week, about the ninth hour of the day, at the village of Dunstable, the heavens opened above them, and to the sight of men, both clergy and laity, there appeared a cross, very long and of marvellous greatness. And there appeared upon it our Lord Jesus Christ fastened with nails : and his hands were extended upon the cross, and the wounds of his hands, feet and side were bloodstained and blood flowed down but not to the earth. And this vision continued from the ninth hour of the day until twilight. AK,II,p.47
Later, Benedict alludes to these phenomena again but without adding any further details. AK,II,p.60
Other writers give varying dates to the phenomena. ES,II,p.98
FZ,I,p.151

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1189 **Thunderstorm** on March 7.
Matthew Paris : On the nones of March very horrible thunder was heard. EA,II,p.351

1189 **Thunderstorm** on June 24.
Worcester Annals : There was lightning, thunder and hail on the morning of the day of the Nativity of the blessed John. Also this year there was a great famine. . . . GK,p.386
Short appears to allocate this to 1190, but gives 1189 in other places. A,II,p.183

1189 Apparently Short indicates auroræ in this year but there seems no authority for this. A,II,p.178

1189 **Floods** in Ireland.
Annals of Inisfall : Great inundations in this year. CV,I,p.120

1190 Baker refers to a severe thunderstorm on May 3, and quotes Roger de Hoveden, but it does not appear to be mentioned by that writer. J,p.30

1190 **Gale** in Ireland.
Four Masters : . . . and early on the following morning they embarked on the Shannon and sailed into Lough Ree. A great storm arose on the lake by which their vessels were separated, and the boat in which O'Conor sailed became unmanageable in consequence of the violence of the storm, and was swamped, so that all perished with the exception of Cathal Croivdearg and six others. BW,p.23
No precise date is given.

1191 **Gale** in Ireland.
Annals of Inisfall : A great wind in this year destroyed churches, houses and forests and killed many men and cattle in Ireland CV,I,p.120
Annals of Loch Ce also mention this gale and also give no exact date. BC,I,p.185

1191 ? **Drought** in Ireland.
Annals of Loch Ce : The Gaillimh became dry this year. BC,I,p.185
The Four Masters apparently allocate this event to **1178** : The river of Galway was dried up for several days, so that all things lost in it from time immemorial were recovered, and great quantities of fish were taken by the inhabitants. BW,p.13

1192 **Aurora** in January.
William of Newburgh : For in the month of January, in the year in which the king fell into the hands of the enemy, we beheld a terrible portent in the sky, no doubt indicative of the affliction which was coming upon us. For about the first watch of the night, the intermediate region of the air between north and east grew so red that it appeared to blaze, as it were ; though there was not the slightest cloud, and the stars were brightly shining ; and these, too, were so tinged with fiery redness, and streaked with white stripes, that they seemed to twinkle with a kind of blood-stained light. After this dreadful appearance had possessed the minds and eyes of the beholders with astonishment throughout all the borders of England, for nearly the space of two hours, by degrees gently vanishing, it disappeared, leaving much conjecture concerning it. GF,p.616
Some early writers give 1193 and Holinshed cites it in 1194, but 1192 would appear to be the correct year. J,p.30

1193 **Very unseasonable year.**
Roger of Wendover : Inundations of rivers, awful storms of thunder and rain three or four times in each month, with dreadful lightnings throughout the whole year : all which caused a scantiness in the crops of fruit and corn. ET,II,p.129
Many writers give a similar account.

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1193 **Thunderstorm** on January 14.
Annals of Bermondsey: This year there was a great thunder and and lightning on the 19th of the calends of February in the night. AL,p.448

1193 **Aurora** in February.
William of Newburgh: And in the month of February in the following year, while the king of England was yet detained in Germany, and the news of his captivity was not generally known in England, a portent very similar appeared throughout England, in the same region of the sky soon after midnight, when the religious orders were chanting their customary praises to God. We know that persons in different provinces were so terrified by the reflection of this tremendous redness on their glass windows, that many of them, supposing that some accidental fire had happened in the adjoining houses, left their chanting, and, marking the dreadful portent, returned to their psalmody. While many conjectures were formed on this repeated portent, the news of the king's captivity became suddenly rife. GF,p.616

1193 **Heavy snows** in Ireland between March 28 and April 4.
Annals of Loch Ce: Great snow between the two Easters in this year. BC,I,p.187

1193 **Stormy weather** in the Channel in mid-October.
One of Ingulph's continuators: Accordingly, the abbat, on receiving these commands, departed in all haste from the court, and made for the sea coast, in order that he might arrive by the fifteenth day after the feast of St. Michael, and appear before his adversaries. But when he had arrived at Barbeflet he had to wait there for some time, being unable to cross over for the boisterousness of the sea and waves. . . . CT,p.292

1193 **Aurora** on November 2.
William of Newburgh: And, indeed, in that same year, when the king's detention had now become prolonged in Germany, and his speedy release was expected, on the fourth of the nones of November, before daybreak, the selfsame token appearing for the third time in the same region of the sky, terrified (but in a less degree) the minds of the beholders; for now they were accustomed to it, though it was the cause of increased conjecture and suspicion. GF,p.617

1193 Boece has a long account of a storm in the North Sea in which Earl David was driven ashore on the east coast of Scotland, and the town of Dundee was founded to mark the landing place. AM,III,p.53
Boece dates this shortly before Richard I's return from captivity.

1194 **Solar corona** on March 13.
Roger of Wendover: . . . and on the Sunday after the feast of St. Gregory he arrived in England at the port of Sandwich, to the great joy of all classes. At the very hour in which the king with his attendants landed, which was the second hour of the day, when the sun was shining clearly, there appeared a brilliant and unusual splendour in the heavens, extending about the length and breadth of the human body from the sun, of a very bright white and red colour, as if a sort of rainbow; and several people who saw this brightness declared that the king was about to arrive in England. ET,II,p.134
According to William of Newburgh, Richard had very rough weather on his voyage across the Channel. GF,p.618

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1194 **Stormy weather** in the English Channel on May 2.
Roger de Hoveden : On the second day of the month of May, being the second day of the week, the king . . . entered one of his long ships, hoping to be able to sail across ; and although the wind was unfavourable, he refused to return. The other ships, however, remained in harbour, while the king and those with him were tossed about on the waves ; for there was a mighty tempest and their hearts became fearful. On the following day, the king returned to the Isle of Wight. . . . ES,II,p.324

1194 **Violent thunderstorm** on June 4.
Bermondsey Annals : And in the same year on the second of the nones of June about the hour of vespers, there was a sudden terrible lightning and thunder. AL,p.448
Short apparently allocates this event to 1195.

1194 **Optical phenomena** on June 24.
Ralph of Coggeshall : On the Nativity of the Blessed John there appeared in the air two great circles, in place, color and size mutually diverse. And the smaller circle, reddish and partially obscured, surrounded the sun on all sides at an equal distance : indeed, clouds somewhat obscured it and, like smoke, were seen within the circle and about the sun, but the brightness of the sun was very little diminished. But the other circle was much larger, white and shining, neither obscured nor tinged with red. And the middle of the said circle surrounded the centre of the sun, and extended the sides of its circuit towards England. And in the white circle near the conjunction with the lesser circle, appeared a kind of rainbow about the length and breadth of a human body : which fatal prodigy lasted from the third hour to the sixth, and attracted the eyes of many, not without marvelling, to behold it. Also these circles were followed by famine, and by tempests from the disturbed air, which many judged it to portend. EG,pp.64–5

1194 Aurora. See in **1192**.

1195 **Gale** in November.
Ralph of Coggeshall : A violent wind occurred in the month of November, so that towers, buildings and trees were overturned. EG,p.70

1195 **Wet Year.**
Annals of Margan : Great abundance of rain, the crops perishing entirely. DP,p.22
Perhaps this wet season did not extend to Ireland as the Annals of Inisfall record : In this year an abundant harvest everywhere. CV,I,p.122
The chronology, however, of these annals is not very correct.

1195 **Cold weather** in December.
William of Newburgh : But neither the severity of the winter, nor the religious attributes of the season. . . . GF,p.648

1195 Thunderstorms. See in **1194**.

1196 **Backward spring** and famine.
William of Newburgh : So once more did the rage for war break out. . . . neither the sacred seasons of Lent and Easter, nor the inclemency of the weather, which was more severe and lasting than usual, nor the famine which was raging beyond measure throughout the provinces, could oppose any obstacle. . . . GF,p.650

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Later, William devotes a whole chapter to an account of the famine and pestilence. (Lib. V, Cap. 26).
A great many early writers deal with the great famine which prevailed during this year. Walter de Heminburgh mentions a general famine throughout Europe in 1195 as well. He adds that the weather in 1196 was very unseasonable from Quadragesima until Easter. This is evidently the remark which is expanded by Lowe into incessant rains from 1193 to 1196, a statement which he attributes to Hemingburgh but which is not to be found in the works of that writer. FZ,I,p.218 H,p.24

1196 **Parhelia** on June 6.
William of Newburgh : In the octave of Pentecost, and in the first hour of the day, two suns appeared in the heavens ; namely, the true sun and a second, its equal in size and brilliancy. Nor was it easy to discern which of them was the true one, unless by its regular course ; for the other appeared to follow it at a little higher elevation —a presage, perchance, of the evils that ensued : and this sign I beheld with my own eyes, with some others who were with me. GF,p.662

1196 **Stormy weather** in August.
Roger de Hoveden : Accordingly, Harold, . . . came to the king's feet, and threw himself upon his mercy, the more especially, as there was a storm raging at sea, and the wind was contrary to him when attempting to reach the Orkney Islands. . . . ES,II,p.392

1196 **Gale** on November 3.
Waverley Annals : A violent wind from early morning until eleven o'clock on the 3rd of the nones of November. GB,p.250

1196 According to Short there were floods in this year due to the rains. He is probably alluding to the inclement weather recorded by Walter de Hemingburgh. A,II,p.196

1197 **Fall of coloured rain** in May.
Walter de Hemingburgh : For in the month of May a little before the Ascension of the Lord . . . a shower mixed with blood fell startling the king and all who were present, sprinkling drops of blood on his clothing, and it was feared that so unusual a thing portended evil. FZ,I,p.227

1197 Short states that there were three days' rain about May 4, but he is probably quoting from some foreign source. A,I,p.132

1198 Short alludes to a remarkable fall of dew " as sweet as honey " on June 24, no doubt also from a foreign writer. A,II,p.181

1198 **Violent thunderstorm** on July 20.
Annals of Winchester : In various parts of England in the month of July there were very great storms. The thunder and lightning terrified many men. Indeed the dreadful and violent lightning destroyed several villages with their inhabitants and herds. The crops, already damaged by lightning in the ear, were wholly laid low by the violent hail and the huge and hard hailstones. Birds of the air also, namely crows, and others of like kind, were killed, so that they were found scattered on the fields and roads. GH,p.69
Although no precise date is given in the Winchester Annals, the Waverley Annals record this as on July 20. GB,p.251

1198 **Gale** on August 23.
Annals of Margan : On the vigil of St. Bartholomew a violent wind did great damage to the crops. DP,p.23

1198 The Winchester Annals relate the following prodigy : In the month of August, a certain man, sufficiently rich in goods, but surnamed The Poor, coming into his large and spacious field, and seeing in it less than its usual fruitfulness, cursed it, saying : " I consign the

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whole of thee to the Devil" . . . The next day after this same imprecation a violent tempest with evil spirits so far consumed this field that out of many thousands, there was not a single ear of corn left. GH,p.69

1198 **Thunderstorm** on December 22.
Ralph of Coggeshall: There appeared by day in the month of November for fifteen days, a comet, foreshadowing, it was said, the unnatural ruin of King Richard, and similarly, a horrible winter thunder was heard on the morrow of St. Thomas the Apostle. EG,p.88

1199 **Wet Year.**
Roger de Hoveden: In the same year, there were in England, and the various parts thereof, such vast floods of water that bridges, mills, and houses were carried away. ES,II,p.465
Roger describes how the bridge at Berwick was carried away and the disputes involved in its rebuilding.

1199 Thomson mentions a parhelia in this year on the authority of Holinshed. The allusion is no doubt to the phenomenon of June 6, 1196. FO,p.233

1199 Thunderstorms are noted by Short on October 31, and November 4, but no earlier record has been traced. A,I,p.132,etc.

§ 9—THIRTEENTH CENTURY.

There is in MS. Royal 7. F viii (British Museum) a brief weather diary covering the period August, 1269 to February, 1270. The MS. consists of an astronomical table, and weather data for some of the days are noted in the margin.

1200 **A Cold Year** in Ireland.
Annals of Loch Ce: A cold foodless year, the equal of which no man witnessed in that age. BC,I,p.213
Watson gives a severe winter to this year presumably founding on this entry in the Irish annals. (*London, Quart. J. R. met Soc., 27, 1901, p. 141.*)

1200 **Thunderstorm** at Newmarket.
Ralph of Diss: A certain monk from overseas, as he was taking his way towards St. Edmunds, being suddenly struck by lightning together with his horse, perished, entirely without visible wounds: his body was taken to St. Edmunds. EH,II,p.172

1200 **Bad weather** in November.
Roger of Wendover gives an account of the translation of the body of Bishop Hugh from London to Lincoln. Lighted tapers were carried, at least one of which remained alight the whole of the four days' journey "although the weather was often unusually bad, on account of the wind and the rain". ET,II,p.198

1200 **Thunderstorm** on October 31.
Ralph of Diss: On the following fourth day of the week, namely the vigil of All Saints, a sudden and horrible thunder was heard, portending something of importance. EH,II,p.171
There is some slight error here as in 1200 the vigil of All Saints was on Tuesday.

1200 **Paraselenae** just before Christmas.
Roger de Hoveden: In the same month of December, a little before the Nativity of the Lord, there appeared by night, in the province of York, five moons in the heavens, at about the first watch of the night. The first appeared in the north, the second in the south, the third in the west, the fourth in the east, and the fifth in the middle of the first four, having with it many stars; and this latter one, with its stars, made the circuit of the four moons previously mentioned five or six times. This phenomenon appeared in the sight and to the great surprise of many for about a period of one hour; after which it vanished from the eyes of those who beheld it. ES,II,p.507

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1200 Lowe allocates incessant rains to this year quoting Walter de Hemingburgh, but that writer does not appear to mention them. H,p.24

1201 **Violent thunderstorms** on June 25 and July 10; **wet year.**
Ralph of Coggeshall: On the morrow of the nativity of St. John, a violent tempest of thunder, lightning and hail arose, with deluging rain: by which men, animals, and crops were destroyed, houses set on fire, and trees thrown down in several places. And again, fifteen days later, another tempest arose, not unlike the first, so that the meadows could not be cut, the hay being carried away by the rapid flow of the waters. A great number of fish, and those not small ones, died by reason of the fouling of the water which was brought about by the putrefying of the hay. Also so great an inundation was projected forth from the clouds, notably in divers neighbouring provinces (not, however, in one day), that bridges were broken down, crops and hay carried away, some even submerged, and several people were afraid that in this outpouring of waters the deluge of God was seen again. EG,p.129

Other chroniclers refer to these storms. The Waverley Annals add that the abbey was deeply flooded by the rains. The Margan Annals say that it rained continuously from May 13 to September 8. All agree as to the great damage done to agriculture. Ralph of Diss refers especially to damage done at Exeter and St. Ives. Thomas Wykes mentions great floods in August.

1201 Short has the following summary for this year: "Hot and droughty, poor harvest ended on June 24, people roasted themselves in the sand." The origin of this remarkably incorrect account has not been traced. B,p.47

1202 **Wet year.**
Several of the later London Chronicles (XVth cent.) note a very wet year with hail in 1202. The following account from MS. Cotton, Julius B II, is representative: In this same yere, that is to say the yere off oure Lorde m'cc.ij, there were greete Reynes and eke Thundres. And also there ffylle grete hayles, ffor ther kome adovne with the Reyne out of the eyre hayle-Stones ffoure Squayre, as grete as eny eyren; wher thurh bothe Trees, Vynes and Cornes were ffully dystroyed, and men were sore afferde. And fferthermore ffoules were y-seyn ffleynge in the eyre, and beryng coles in her bylles, that weren cause off brennynge off many houses. AZ,p.2

Roger of Wendover, a contemporary writer, allocates these heavy rains to 1201, in which year various monastic annalists, as already cited, allude to very wet weather. Possibly these entries in the later chronicles, which are very similar to each other, really relate to 1201. The only record which appears to give both 1201 and 1202 as wet years is the Waverley Annals. It is, of course, conceivable that both years were wetter than usual, but there can be little doubt that 1201 was the more abnormal.

1202 **Frequent thunderstorms** in August.
Ralph of Coggeshall: There was horrible thunder and lightning and frequent hail in the month of August, with violent winds. EG,p.142

This note may be the origin of the destructive storms mentioned in the chronicles of London referred to above.

1202 There is an obscure prodigy noted by Short as on April 10, which might be an aurora but no earlier reference has been found, unless it is the aurora of April 1, 1204 that is intended. A,II,p.173

1202 The severe winter mentioned by Holinshed in this year no doubt refers to that of 1205. It is given under 1202 by Short in several places as well as in 1205.

1203 **Floods** in April.
Ralph of Coggeshall: In the year 1203 in the month of April the waters suddenly swelled up beyond what was usual, and brought much inconvenience to various places in England, but what seemed marvellous was that only small rains preceded so great a flood. EG,p.142

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1204 **Aurora** on April 1.

de Taxter : There was red light in the sky like fire on the calends of April which lasted until midnight and the stars appeared also bright red. BS,p.311

This is placed by Short in 1205. The phenomenon is probably the " fiery meteors " mentioned by Seller as in John's reign. FD,p.290

1205 **Very severe winter** from January to March.

This is one of the severe winters of history. A very great number of chroniclers and annalists mention it. The earliest of the contemporary accounts appears to be that of Ralph of Coggeshall : In the year 1205 there was a bitter winter and the rivers were frozen so that the Thames could be crossed on foot. Indeed the earth was so bound up that from the Circumcision of the Lord until the Annunciation of our Lady ploughing was impossible. In fact the winter seed in the pliable earth was almost extinct through the violence of the cold : the green vegetables became dried up. Whence a great famine arose. . . . EG,p.151

Other contemporary accounts also exist.

Roger of Wendover : . . . and in the same month of January the land was frozen to such a degree that all agricultural labour was suspended from the 14th of January till the 22nd of March on account of which, in the following summer, a load of corn was sold for fourteen shillings. ET,II,p.215

de Taxter : A sharp frost lasted from the 19th of the calends of February until the eleventh of the calends of April. BS,p.312

If Boece, a XVIth century writer, is correct, the winter was also severe in Scotland. His account is :

All this wes done, as I haf said 3ow heir,
So strang ane storme doun fra the hevin fell
Of frost and snaw, as my author did tell,
Continewallie all winter throw and throw,
That neuir ane ox wes 3okkit into bow,
Bot lay full still into thair stall wnsteird
Quhill that mid Merche come neuir pleuche in eird.
So furius ouir all part wes that frost,
Of bestiall that thair wes mony lost ;
The starkest aill of malt that mycht be browin,
Thocht it war keipit neuir so clois and lowin,
It wald congeill and freis into hard yis,
The thing of all men thocht wes than most nys,
That this be weycht, and nocht mesour, wes sauld,
That tyme for drink, as that my author tald. AM,III,p.61

Some of the later chroniclers give this frost under 1204 and others under 1205 but most of them agree that it was in the VIth John and thus the winter of 1204–5 is almost certainly the true date. Easton gives many continental references under 1204–5.

It is referred to in the Irish annals also. Thus in the Annals of Loch Ce : Great frost and snow from the Kalends of January to the festival of Patrick in this year. BC,I,p.235

A number of recent compilers apparently refer to this severe winter as in 1207. They appear to derive from Luckombe (p. 161) or some similar compendium, and some of them have hard winters under 1205 as well as 1207. Short gives very heavy snows on January 14, 1203 or 1205 probably quoting an incident in this remarkable winter from some foreign source.

1205 **Parhelia.**

Chronicle of Melrose : Two moons appeared in the sky at the same time : both of them were of the same size. Their horns touched

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each other at one extremity but they were widely apart on the other : at last, however, they coalesced. DT,p.148

Some chronicles allocate this display to 1204.

1205 **Thunderstorms** on June 23, notably at Maidstone.
Ralph of Coggeshall : On the night of St. John the Baptist there was heard throughout the whole night a horrid thunder, and terrific lightning was seen over all England to dart forth out of the thick clouds. EG,p.155

This record then relates how a monster with an ass's head and a human body was struck by lightning at Maidstone.

1205 A notable deposit of " honey dew " is mentioned in the Worcester Annals about June 24. It does not appear to be noted in any earlier native record. GK,p.393

1205 **Severe thunderstorms** on July 28.
Ralph of Coggeshall : Further, on the night of St. Felix (after the feast of St. James) there was so much crashing of horrible thunder and crackling of lightning, which ceased not to flash from the colliding clouds the entire night over the whole of England at one and the same time, that it was believed to be like the day of judgment : men and animals hardly breathed through the fear and the trembling with anticipation which came upon the whole kingdom. For several people of both sexes in divers places were struck by lightning and perished. Also animals were similarly struck, houses thrown down and burned, crops broken by hailstones, which, in several places, were of the bigness of goose eggs and pointed on all sides. Several trees were torn up by the roots and carried away, some were twisted like ropes, and some were manifestly broken across the middle. EG,p.155

1206 ? **Thunderstorm** on April 13.
Chronicle of Melrose : On the ides of April, the moon being 19 days old, thunder was heard. DT,p.149

In 1206 the moon was only about 4 days old on the ides of April. 1207 gives a better answer to the test but by no means an exact one.

1206 **Heavy snow** on April 25.
Chronicle of Melrose : On the seventh of the kalends of May such a great quantity of snow fell as would scarce be credited by those persons who had not seen it. DT,p.149

1206 **Thunderstorm** on July 15, at Bermondsey.
Bermondsey Annals : Further, in the same year on the ides of July, thunder was heard at Bermondsey so heavy that certain who were present there belonging to the kingdoms of Gaul, Burgundy and also Auvergne testified that they had never heard such terrible thunder. AL,p.450

1027 **Gale** on January 27.
de Taxter : A sudden wind prostrated a great number of houses and trees in England on the sixth of the kalends of February. BS,p.312

Annales Sancti Edmundi refer to this and add that flocks and herds were lost in the snow. EZ,p.15

1207 **Heavy rains** about November 23.
Annales Sancti Edmundi ; About the feast of St. Clement there was a great inundation of water. EZ,p.15

1208 **Floods.**
Annales Sancti Edmundi ; There were violent and destructive inundations of waters. EZ,p.16

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1208 Severe thunderstorms with rain and hail are quoted by Short in this year. No earlier reference traced. A,I,p.134

1209 **Floods** at Bermondsey.
Bermondsey Annals: And in this year the lands of Bermondsey were flooded by the flow of the Thames. AL,p.451

Walford in referring to these floods says definitely that they occurred on December 5. No exact date, however, appears to be mentioned in the Annals. K,p.24

1209 **Cloud phenomena** on February 11.
Ralph of Coggeshall: On Ash Wednesday early in the morning, the sun being in the east, a great battle of the clouds appeared with the sun and lasted beyond the first hour of the day. EG,p.163

1210 **Severe winter weather** in January and early February.
de Taxter: A frost lasted seven weeks during which cattle, fishes and birds perished. BS,p.314

The Worcester Annals under date 1210 give further details: In the vigil of the Circumcision of the Lord there began a frost so severe that the Severn, like other rivers, was frozen over for four miles beyond Gloucester: so that it enabled men and horses to cross over it and the frost endured until the night of St. Valentine, and four days after that all the ice was melted without doing any damage. GK,p.398

Walter of Coventry writes: In the beginning of this year, namely on the kalends of January, there began a very bitter frost with great snow, which continued till the feast of St. Valentine and the thickness of the ice in some places exceeded the measure of one foot. And the cold was so bitter that wild beasts, birds and fishes in the marshes died; trees, even the green winter ones, were either painfully dried up or their foliage ruined. GN,II,p.201

Short gives the date of this frost as 1210 in one place and as 1210 or 1212 in another. In still another place he alludes to a long and hard winter in 1209 or 1211. Some compilers give the year as 1209, but January and February 1210 seems the most probable date.

1210 **Disastrous floods** at Perth.
Boece: Off ane greit Spait and Tempest of Weit that did greit Skayth in Bartha Toun, and sindrie Pepill thairin did droun be the Efflux of Amond and Tay.

> Off Bartha toun quhilk in that samin da
> At Amond mouth stude on the water of Ta,
> Weill wallit wes with stone and lyme about,
> And many foussie cassin als without,
> Schort quhile befoir into the samin 3eir
> Sic thing wes done as I haif said 3ow heir,
> Vpoun ane nycht quhen it wes mirk and lait,
> Out of the hillis thair come sic ane spait,
> With so greit force als fast as it mycht flow;
> Quhilk causit hes the tua fluidis to grow,
> Amond and Tay, into sic quantitie,
> That throw the greit impetuositie
> Of tha fluidis it brak the wallis doun,
> Syne with greit force it enterit in the toun. AM,III,p.65

There follows a list of the casualties in this calamitous flood. The prince John, son of William the Lion, his nurse, about 30 of the royal household and many of the Scottish nobility lost their lives in this inundation. The queen herself had a narrow escape from drowning.
In one place Short has 1210 or 1212 as the date of this flood. A,I,p.135

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1210 Short has a number of confused references to weather about this time. He says of 1209 or 1211 " terrible summer of thunderstorms, heavy rains, severe winter, with dearth after it ". He also says of 1210 or 1212 " very rainy ". The origin of these notices has not been traced. A,II,p.191

1210 **Gale** on September 23.
de Taxter : The tower of the church of St. Edmund fell by the violence of the wind on the 11th of the calends of October. BS,p.314
The Dunstable Annals, a later compilation, evidently allude to this occasion : In the same year by reason of the violence of the wind numbers of our houses fell, and the towers of St. Edmund, and two towers of Chichester, and the tower of Evesham. BF,p.32
They place the event in 1211.

1211 **Aurora** in April.
Dunstable Annals : And then, in the month of April, at night, beyond the village of Chalgrove, there was seen a red bow in the sky, like blood. . . . BF,p.34

1211 Gale. See in **1210.**

1211 **Thunderstorm and gale** on December 21.
Dunstable Annals : In the same year on the feast of St. Thomas the apostle, there was heard in many places in England a great thunder : and then there was such a violent wind that many houses were borne down by its force. BF,p.34

1212 **Parhelia in January.**
Dunstable Annals : In the year 1212 there appeared two suns in the month of January. BF,p.35

1212 There was a conflagration on London Bridge on July 10, which was much aggravated by winds. John de Oxenedes has an account of it. CY,p.127

1212 **Continued rains** in September and **gale** in December.
Walter of Coventry : Indeed in the autumn until the Nativity of St. Mary the disposition of the weather was tolerably serene, when suddenly there supervened a continual rain which contributed not a little to the hurt of England. And a most violent wind about the middle of winter threw down stones from the towers to the ground. GN,II,p.206

1213 **? Dry year.**
Worcester Annals : The great river Wye in three places beyond and below Hereford was dried up so that it could be crossed dry-shod, the water here and there resting as if solid, its flowing forgotten, and this lasted for an hour. GK,p.401

1214 **Marine Inundations** about September 8.
Walter of Coventry : The unusually high flow of the sea tide caused damage in England about the Nativity of St. Mary. GN,II,p.217

1214 Luckombe, (p. 6) refers to a very low tide at London Bridge which continued the whole day. No earlier reference has been traced. Possibly it may be a very distorted reference to the desiccation of the Wye in 1213.

1215 **Great Storm** in the Channel on September 26.
Roger of Wendover gives an account of the fiasco of Hugh de Boves' expedition : . . . he embarked with all his forces and sailed for Dover, but a sudden storm arising before he reached his destined port, they were all shipwrecked and swallowed up by the waves. ET,II,p.536
The Melrose Chronicle gives a long account of this business and definitely dates the storm September 26. DT,p.159

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Matthew Paris adds the following note: On the same night that Hugo de Boves perished there was an unprecedented storm, the like of which had not before been seen, namely of wind, rain, thunder and lightning. EA,II,p.622

1215 **Fine weather** in Wales in December.
Brut y Tywysogion: And during that expedition there was a gentle tranquility, and fairness of winter atmosphere, such fine weather as had never been seen or heard of before. AS,p.289
This note occurs in an account of the activities of Llewellyn during the latter part of December.

1215 Paraselenae are referred to by Short in this year. No earlier record has been traced. A,II,p.177

1215 Bentley mentions a rainbow which was seen at Runnymede when John met his barons there. No record of this phenomenon has been found in any early writer. (*London, Quart. J. R. met. Soc., 31, 1905, p. 174.*)

1216 The Melrose Chronicle gives an account of an extraordinary prodigy connected with the moon seen at Glenluce on April 4. DT,p.164

1216 **Stormy weather** in the Channel in mid-May.
Ralph of Coggeshall gives an account of the arrival of the dauphin Louis in England to aid the barons against John. This was in May. He records: . . . but, behold, a violent and tempestuous wind out of the north arising, the fleet was in great part broken by collision, sunk by overturning, as well as scattered into southern parts. . . . Indeed our lord Louis, his forces all prepared at Calais, Gravelines and Witsand, and with a breeze called a north-easter (which is midway between the east and the north and partakes of both), began to sail towards England, not directly, but laboriously and obliquely; the wind distended the sails and he made Stanore on the Saturday after the Lord's Ascension, that is the 14th of the calends of June. EG,p.181
Actually it was the 12th of the calends of June.

1216 **Violent gale** on October 19.
Ralph of Coggeshall: Indeed, about midnight, that is, the hour in which he died, such a rattling of wind and a hurricane resounded in the city that the citizens feared the overturning of their houses. EG,p.184
John died on October 19.

1216 **Frosty weather.**
Roger of Wendover gives an account of the ravages of Walter Buce in the Isle of Ely which he entered by the bridge at Stuteney. Matthew Paris, in repeating this account adds " . . . and bridges were made on the ice". EA,II,p.645

1216 **Wet harvest time** in Scotland.
Boece: The next 3eir efter it wes compleit,
In harvest fell sic ane rane and weit,
With roik and mist than baith at evin and morne,
Quhill haillelie distroyit all the corne;
Quhairof that 3eir sa mony had greit want,
Ouir all Scotland so deir it wes and scant,
And Ingland als, that mony man and wyffe,
For falt of fude that 3eir loissit the lyfe. AM,III,pp.110–1
Boece then relates how this famine was turned to advantage by Haco, king of Norway, to invade Scotland. Haco's ships, however, were dashed to pieces in a storm:
That samin nicht his schippis on the flude,
Seven scoir and ten togiddir quhair tha la,
With storme and tempest brokin war. . . . AM,III,p.120

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1217 Richardson (Vol. I, p. 68) states that a frost occurred in this year lasting **15 weeks**. No native writer alludes to this frost and it does not appear to be in any compiler's list.

1217 **Parhelia** at Worcester on April 26.
Worcester Annals: On the morrow of St. Mark there was seen two suns during supper time by a monk, John of Gloucester, and other monks. On the fifth of the calends of May in the evening the sun became like blood and so remained for many days. GK,p.408

1217 ? **Aurora** seen at Dunstable on October 27.
Dunstable Annals: And then on the vigil of Simon and Jude there was seen by certain canons of Dunstable to be visible a certain immense cross passing through the air with a great glory from the eastern to the western parts. BF,p.53

1218 ? **Wet and stormy year** in Ireland.
Annals of Clonmacnoise: This year was wett, wyndie, and boysterous, with great destruction of corn. BA,p.229

These annals also place the beginning of Henry III's reign in this year instead of in **1216**, so that there may be errors in chronology here.

1218 **Lightning** on February 2 at Stepney.
Annals of London: Sviekyn died, killed by lightning, at Stepney Heath on the day of St. Laurence. DK,p.22

1218 **Thunderstorm and heavy rain** on November 29.
Matthew of Westminster: And on the night of St. Andrew an incomparable and unprecedented storm with thunder, lightning, wind and rain burst fearfully upon the whole world in both eastern and western parts and the sea suddenly gathered and swelled up like the Nile. . . . DQ,p.278
Matthew Paris adds: This tempest was so general that in England and Scotland it engendered unprecedented thunder and lightning. EA,III,p.42

Possibly these are the "great floods in the night in winter" which Short quotes in his list. In another place he refers to a "thundery wet and tempestuous winter" in **1219**. A note in *Nature* (Vol. 126, p. 792) would appear to date these events on November 17. A,II,p.197

1218 The Lanercost Chronicle has an account of prodigious appearances in the sky which seem very difficult to rationalise. DH,I,p.26

1219 **Very wet year** in Ireland.
Annals of Loch Ce: There was rain the whole year, a few days excepted. BC,I,p.259

1220 **Wet** in the early part of the year and from August 9 to Christmas.
Worcester Annals: It rained all the winter, and from the morrow of St. Matthew the Evangelist until Christmas. GK,p.141

1220 Several of the London chronicles, none of them contemporary, record a violent gale on St. Luke's day in the 5th Henry III, which is actually October 18, 1221, though most of the rubrics are 1220.

The account in MS. Cotton, Julius B II, can be quoted as typical: In this same yere, that ys to say vpon Seynt Lukys Day, ther Blewe a grete Wynde out off the North Est, that ouer threwe many an house and also Turrettes and Chirches and fferde ffoule with the Woddes and Mennys Orcherdes. And also fyrye Dragons and Wykked Spyrites weren many seyn, merveyllously ffleynge in the eyre. AZ,p.3

Some of the MSS. of these chronicles give **1221**, **1223**, and even **1224** as the date, the latter two being almost certainly erroneous, but it is difficult to decide between **1220** and **1221**. Short in some of his quotations of this event gives **1219**. A,II,p.174 etc.

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1221 **Frosty weather.**
Annals of Dunstable: But shamefully repulsed, he approached Fodringham unexpectedly, supported by the assistance of the frost. . . . BF,p.53

Short gives a severe winter to this year and Lowe does the same quoting the *Chronicon Magdeburgensis*, but Easton does not appear to know of this event, although he uses the latter source.

1221 **Very wet weather** on July 5 and 6.
Annals of Bermondsey: In this year on the third of the nones of July it rained all day and all night and all the following day and night. AL,p.455

1221 Lycosthenes mentions much thunder and lightning in Britain this year but no native writer appears to record it. Possibly the storms of November 30, 1222 are meant. DN,p.341

1221 Gale. See in 1220.

1222 **Gale** on January 19.
Chronicon Brevius: There was a large comet with tails and a violent wind. . . . AX,p.302

William of Newburgh's Continuator records this comet and adds that dragons were seen at the same time, probably signifying auroral appearances. He says nothing about gales. GE,p.530

1222 **Violent thunderstorm** at Grantham on February 8.
Roger of Wendover: On the eighth of February in the same year, dreadful thunderings were heard, and the lightning darting forth at their collision set fire to the church of Graham in the county of Lincoln, from which there proceeded such a stench that many who were in the church being unable to endure it, took to flight: at length, however, by lighting the holy taper, and sprinkling holy water, the fire was after some trouble extinguished, but the traces of the conflagration still remain in that church. ET,II,p.441

Short gives 1222 and 1223 variously in different places. Several modern compilers (Luckombe, p. 169, for example) mention "violent rain in London" in this year. Conceivably this statement may be an obscure reference to the event described.

1222 **Great snow and frost** on March 13.
Annals of Bermondsey: In this year on the 3rd of the ides of March a great snow broke down many trees, so that in many places no foliage appeared this year: the fruits of the orchards entirely perished in several places. AL,p.455

The Waverley Annals refer to this snow but place it in April.

1222 **Thunderstorms** on September 14 followed by **great rains** until February 2, 1223.
Roger of Wendover: In the same year, too, at the exaltation of the holy cross, there was much thunder throughout all England, and this was followed by deluges of rain, with whirlwinds and violent gusts, and this tempestuous weather, together with an unseasonable atmosphere, continued until the Purification of St. Mary, doing great damage to numbers of people, and especially the farmers. ET,II,p.441

1222 **Windy year** in Ireland and also in England.
Annals of Loch Ce: Great wind, through which structures and buildings, and ships, were destroyed in this year. BC,I,p.265
John de Oxenedes: There were various tempests in this year and a great and sudden wind blew down houses and churches, tore up trees and submerged ships in the deep. CY,p.147

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1222 **Dry Year** in England.
Ralph of Coggeshall: None remembered a season which was so sickly everywhere as it was in this year, by reason of the unnaturalness of the summer heat and dryness. EG,p.192

1222 **Severe thunderstorms** on November 30, notably in Warwickshire.
Roger of Wendover: In the same year also, on the feast of St. Andrew the apostle, thunder was again heard throughout England in general which destroyed churches and church towers, houses and other buildings, walls and ramparts of castles. In a town called Pilardeston, in the county of Warwick, the storm destroyed the house of a certain knight, burying his wife and eight persons of both sexes, to the great awe of numbers who saw the calamity. After this the storm, gaining power in its rage, in the same town fell upon a turf-pit surrounded by a lake of deep water, and in an instant dried it up so that it left neither grass nor earth in it, and only the dry stones remained. ET,II,p.441
The Annals of Tewkesbury mention this storm and so do the Worcester Annals but the latter date it in 1223 and add the further detail that both of the smaller towers of Worcester cathedral were demolished by it. GK,p.415
Bentley quotes the damage to the cathedral incorrectly as in 1221.

1222 **Gale** December 12.
Roger of Wendover: Again, on the eve of St. Lucy the virgin, a strong and sudden storm of wind arose, which raged more fiercely than the before mentioned tempest, for throughout England in general it threw down buildings as if they were shaken by the breath of the devil, levelled churches and their towers to the ground, tore up by the roots the trees of the forest and fruit trees, so that scarcely a single person escaped without suffering loss. ET,II,p.442
The Dunstable Annals evidently refer to these last two events and add a few more details. The gale of December 12 did damage to Dunstable church and also to the church at Merton. DH,p.76

1222 **Aurorae.**
Waverley Annals: Dragons were seen by several people flying hither and thither in the air: and to some they were seen to be striving and fighting together. GB,p.297

1222 The "inundations due to very high tide" mentioned by Short from Holinshed have not been found in any original writer. A,II,p.196

1223 **Gale** in January.
Tewkesbury Annals: In January there was a very mighty and strong wind which threw down towers and houses. FM,p.66

1223 **Thunderstorms** in June.
Ralph of Coggeshall: In the month of June a horrible tempest of thunder and hail arose. . . . EG,p.94
Perhaps this is the storm that Stow refers to as at Chelmsford in this year. FL,p.427

1223 **Gale** in Ireland on September 22.
Annals of Loch Ce: Great wind in the day after the festival of Matthew which injured all the oats of Erinn that it found standing. BC,I,p.267

1223 **Very wet year.**
Matthew Paris: And in the same year there were such inundations of rain and overflowings of waters continuing in every month of the year that it very greatly hindered the seasons and the fruits were very late in maturing: so much so that in the month of November there were hardly any crops to lay up hastily in the barns. . . . EA,III,p.82
Short says in this year "cloudburst choked many people", possibly an almost unrecognisable reference to the wet weather reported by Matthew. A,II,p.181

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1223 Gale. See in 1220.

1224 **Gale** in January.
Matthew Paris: . . . also in the month of January, towers and walls of churches, with groves of oaks, were rent asunder by a violent storm of wind, made to totter, and thrown down. EA,III,p.82
Probably this is the storm mentioned in the Chester Annals as on January 1: On the day of the circumcision there was a great and marvellous tempest. AV,p.52

1224 **Curious shower** in Connaught.
Four Masters: An awful and strange shower fell in Connaught, extending over Hy Maine, Sodain, Hy Diarmada, and other parts, followed by terrible diseases and distempers among the cattle that grazed on the lands where this shower fell; and their milk produced, in the persons who drank it, extraordinary internal diseases. BW,p.40
No details are provided as to the nature of the shower.

1224 **Dry winter.**
Waverley Annals: A great drought in winter, whence sowing was hindered and a great famine followed. GB,p.300

1224 **Unseasonable weather** in Ireland: corn reaped in January.
Four Masters: The corn was unreaped till the festival of St. Bridgit, when the ploughing commenced, occasioned by war, and the inclemency of the weather. BW,p.42
These same annals have a similar entry in 1225 also. Some of the other Irish annals give the event as in 1224 and others as in 1225. Possibly the meaning is that 1224 was such a bad year that the corn was not all reaped until February 1, 1225. BC,I,p.273 FT,II,p.277

1224 Short mentions that there were severe thunderstorms for fifteen days together in November. This is an error for 1233 (q.v.). Hennig (p. 24) follows Short in this error. A,II,p.183

1224 Gale. See in 1220.

1225 **Snow** on June 24.
Winchester Annals: A very great snow came on the feast of the blessed John the Baptist, with thunder and lightning. GH,p.84
This remarkable event is not mentioned in any other annals.

1225 **Stormy summer.**
Roger of Wendover has an account of a voyage from France to England by the Earl of Salisbury during which a phenomenon is described which appears to be St. Elmo's Fire. It was followed by three months stormy weather. The date is uncertain but appears to be say, May to July. ET,II,p.460

1225 Bad harvest. See in 1224.

1225–1226 A number of compilers, beginning with Short, allocate a severe winter here. No mention of it is to be found in any native writers. Easton gives a number of continental records. A,II,p.199

1226 There are references in Short to a severe northerly gale in this year, and Hennig (p. 24) follows him. No original account of this has been found. A,II,p.185

1227 **Great thunderstorms** in July.
Annals of Worcester: Further, this year there was a great thunder throughout all England at the end of July and large hail fell the size of eggs, and many perished by lightning. GK,p.420

1227–1228 **Floods** in winter.
Annals of Worcester: There was an inundation of rivers in December, January and February such that no one then living had ever seen the like in their time. GK,p.420

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1228 **Much thunder and lightning** in the summer ; **wet autumn.**
Roger of Wendover : During the whole of the summer this year dreadful storms of thunder and lightning happened, which set fire to numbers of buildings in various places and destroyed men and cattle. In the following autumn constant deluges of rain fell, which did much harm to the farmers at harvest time.

Possibly the two entries above from the Worcester Annals may refer to the same series of events as detailed by Roger. If that is the case, Roger's date is likely to be the correct one, as he was writing his " Flowers of History " about this time.

There are also references to thunderstorms in this year in the Margan Annals : In this year the barn of the monks at Vacella was burnt by lightning, in which was kindled an inextinguishable fire that lasted for two months. DP,p.36

1229 **Severe winter.**
Margan Annals : In this year there was an unusually bitter winter ; indeed, the waters were so frozen up that horsemen could cross upon the ice : also the snow afterwards was so great that the earth was covered for several days. DP,p.37

The Waverley Annals mention a heavy snow in January, 1230. GK,p.421
Short seems to give both 1228 and 1229 in his list. A,II,p.189

1230 **Lightning damage** in London.
This is referred to in the Annals of London without any specific date. DK,p.29
Capgrave's account is under 1228 : In the XIIIth year of Henry fel a mervelous thing at London. For evene as the bischop was at Masse at Seynt Poules there felle a thundir, and a wedyr so dirk and so lowd, that men supposed the Cherch should falle. Alle that were there runne awey for fere : with the bischop at the auter abǫd no man but a dekyn. Ther was eke swech stynk, no man myte suffir it. AQ,p.152
Holinshed dates this January 25, following Roger of Wendover. ET,II,p.533

1231 **Drought.**
Annales Cambriae : There was such drought throughout all England during the whole summer from the month of March until October, that hardly any drops of rain fell upon the earth. AP,p.79
Some MSS. of these annals give 1232.

1232 **Much thunder** in November.
Roger of Wendover : In the same year on the morrow of St. Martin's day, were heard dreadful thunderings which continued at intervals for fifteen days to the great alarm of many, and especially of the citizens of London, who were now quite familiarized to them, for whenever they occurred in England, they were never unheard in London. . . . ET,II,p.562
Short improves on Roger by extending the duration of the phenomena to 19 days and adding that a similar event occurred in March 1233 (q.v.). Gutch in one place gives 1223, clearly a *lapsus calami* for 1232. Some other compilers have incorrect dates. A,II,p.179 E,p.144

1232 Drought. See in **1231.**

1233 **Gale with thunder** on February 10.
Chronicle of London : In this yere, in the iiij idus of Feverer, was a gret wynd, a gret erthequake, and a gret thondyr. DL,p.14
Other London chronicles have 1234. DG,p.35

1233 **Thunder** on March 23 : **wet summer.**
Roger of Wendover : In the same year, on the 23rd of March, dreadful thunderings were heard, followed by inundations of rain throughout the whole summer, which destroyed the warrens and washed away the ponds and mills throughout almost all England ;

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and in the ploughed and harvest fields and other unusual places in different parts, the water ran about in rivulets and formed into lakes in the midst of the crops, in which to the astonishment of many, the fishes of the rivers were seen ; and mills were standing in various places where they had never before been seen. ET,II,p.567

1233 **Parhelic phenomena** on April 8.
Roger of Wendover : In the same year on the 8th of April, about the first hour of the day, on the confines of Hereford and Worcester, there appeared four spurious suns round the real sun, of different colours, some of a semi-circular form and others round. These suns formed a wonderful spectacle, and were seen by more than a thousand creditable persons ; and some of them, in commemoration of this wonderful phenomenon, painted suns and rays of various colors on parchment. . . . ET,II,p.567

The Worcester Annals, a later compilation, refers to this display, but dates it *die veneris ebdomadae Paschae*, i.e., April 6. Later compilers vary in their dates. GK,p.424

1233 ? **Aurora** in June.
Roger of Wendover has a fantastic account of two immense snakes fighting in the air, and one overcoming the other. This is probably a description of a display of aurora. Armies, ships or serpents fighting in the air is a very usual term in old writers to describe auroral appearances. ET,II,p.567

1233 **Great floods** on July 11 and 12.
Annals of Winchester : On the vigil of Saint Margaret there was a great inundation of rain, by which the greater part of England was imperilled, that is, the crops and such like. GH,p.86
Annals of Waverley : In this year in the month of July, on the fifth of the ides of the same month, being the sixth hour of the day, the second day of the week and the 30th of the moon, there happened throughout England a sudden inundation of waters, extraordinary in many places, and, notably in the southern parts, it was severe and intolerable, and unfortunately men and animals were drowned : in the adjacent territory, buildings, mills and bridges were irreparably broken down, and irrecoverable damage was done to crops and fruits. Indeed, in the house of Waverley a terrible tempest, violent beyond precedent, raged : stone bridges and walls were broken down and destroyed, rooms and all the offices were violently tumbled together, and, even at the new monastery, there was flooding in several places to the height of eight feet. Damage and inconvenience to the same house was such that, in the buildings in which manifold things both interior and exterior were lost, no one is sufficiently able or certain to value them. GB,p.312

A number of other annalists mention these severe floods.

1233 **Thunder** in November.
Roger of Wendover : At the beginning of the month of November in this same year, thunder was heard, and accompanied by dreadful flashes of lightning, for several days ; and it came to be a usual proverb among labourers, that a woman ought not to weep for the death of her husband or her children, but rather for the thunderstorms, for they always foreboded the approach of famine, mortality, or some such things. ET,II,p.574
John de Oxenedes : Horrible thunder was heard in mid-winter, a sad prognostic. CY,p.162

It is curious that two successive Novembers should be so noteworthy for thunderstorms.

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1233–1234 **Severe frost** from Christmas 1233 to February 2, 1234.

Roger of Wendover: At the same time the frost set in with such severity that the crops in the fields were destroyed, the roots of the trees in the gardens were rotted, and those of the apple trees were frozen four feet down and died: and this continued without any fall of snow till the Purification of Saint Mary, putting a stop to all agriculture; and this was followed in the same year by such an unhealthy atmosphere, and such unseasonable weather, that a great scarcity ensued of all the products of the earth. ET,II,p.580

Many other annalists mention this sharp weather. Most of the Irish chronicles record it.

Thus the Annals of Boyle: A great frost in this year so that the lakes were bound up and people, horses and flocks went upon lake Eradin, lake Ce, and lake Tus and upon many other lakes. AN,p.41

The Annals of Loch Ce record: Great snow between the two Christmasses, and frost afterwards, so that men and horses under burthens, would pass over the principal lakes and rivers. BC,I,p.319

These dates are December 25 and January 6.

1234 **Unseasonable Year.**

Roger of Wendover: In this year, which was the third of the unfruitful ones, a dreadful mortality and famine raged everywhere: and these pestilences were doubtless brought on as well by the sins of the inhabitants as by the previous unseasonableness of the atmosphere and the general sterility of the land. ET,II,p 598

1234 Gale and thunder. See in 1233.

1234 **Violent storm** on July 16 in Bedford and Norfolk.

Roger of Wendover: . . . .there suddenly arose a great storm of thunder, lightnings, and whirlwinds, attended by inundations of rain and hail; and the corn in the fields was lifted up by a blast from hell; the cattle and birds, with everything growing in the fields, were destroyed as if trodden down by carts and horses . . . . This storm commenced on the boundaries of Bedford, and passing towards the east through the Isle of Ely and Norfolk, reached the sea coast. In this year indeed several storms of a like nature raged in various places which were as dreadful as they were injurious to many. ET,II,p.600

1234 **Wet weather** in the autumn.

Matthew Paris: . . . but in the autumn, rains choked the seed and loosened it. EA,III,p.305

1235 **Thunderstorm** on June 1.

Tewkesbury Annals: Great thunder was heard and large hail fell on the calends of June. FM,p.96

1236 **Floods** in January and February.

Matthew Paris: About the same time there fell great floods of rain for two months or more, namely, January and February and part of March, such that no one remembered seeing the like before. About the feast of Saint Scholastica, the moon being new, the sea was so swollen by the river torrents, that all the rivers, principally those flowing into the sea, rendered the fords impassable and overflowed their customary banks: also the bridges were submerged, mills and ponds overwhelmed, and sown lands, meadows and marshes covered. Also amongst other unusual events, the river Thames overflowed its usual bounds, and entered the great palace of Westminster, spreading itself to cover the whole area, so that

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small boats could be navigated in the midst of the forecourt and folk went to their bedchambers on horseback. And the water, breaking into cellars, could with difficulty be drawn off and removed. EA,III,p.339

1236 **Dry Summer.**
Matthew Paris: Also in the same summer, as people remarked, after an unusually wet winter, there was a continual drought with an almost intolerable heat continuing four or more months. So much so that deep pools and ponds were dried up, water mills stood useless and profitless, and, the water being dried up, the earth gaped into cracks. Also the seed corn in many places barely grew as high as two feet. EA,III,p.369

1236 Short refers to a prodigy which was seen at " Rochabbay " in Yorkshire on May 1. He appears to be referring to an account of a phenomenon described by Matthew Paris as occurring near an abbey named Roche in the north of England. Possibly the phenomenon might be an aurora borealis. A,I,p.142

1236 **Heavy Rains** on October 6.
Matthew Paris: Also in those days, that is, on the Monday following, heavy rains inundated the northern parts of England, so much so that streams and lakes flooded their usual bounds, and bridges and mills and other things on the banks were damaged and destroyed. EA,III,p.378

1236 **Marine inundations** on November 12.
Matthew Paris: Finally on the morrow of Saint Martin and before the octave of the same, a wonderful inundation of the sea broke forth suddenly in the night, and a great wind roared with the seas, and there were great and unusual floods in the rivers which, especially in places near the sea, forced ships from all their harbours by dragging their anchors, drowned a multitude of men, destroyed flocks of sheep and herds of cattle, tore trees up by the roots, overturned houses, and ravaged the coasts. And it ascended the the shores increasingly, flowing for two days and the intervening night, which was unheard of: and it did not flow and ebb in the usual way but was prevented, as people said, by the very great violence of the opposing winds. The corpses of the drowned were seen unburied near the shores, thrown by the sea into caves, so that at Wisbech and the neighbouring villages, and along the shores and sea coast, a great number of men perished: indeed, in one village, not a populous one, about 100 bodies were consigned to the tomb in one day. EA,III,p.379

1236 **Thunderstorm** on December 11: **parhelia** on December 12.
Matthew Paris: There was heard wintry thunder on the day of St. Damasus. And there was seen near the sun a certain false sun by its side on the Friday next after the Conception of St. Mary. EA,III,p.339

Short following Holinshed gives the parhelia as on December 5, and the thunderstorm as on December 25. Hennig (p. 24) follows him. A,II,p.143

1236 **Gale** on December 23.
Matthew Paris: Also in the night before the vigil of the Birth of the Lord a most vehement wind raged, with thunder and floods of rain, which shook towers and buildings: and the foulness of the weather rendered the ways both by land and sea impassable. And thus in this year about the time of the equinoxes, twice was England irreparably damaged by a storm. EA,III,p.379

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This gale was experienced in Wales also. *Brut y Tywysogion* records: And one night before Christmas eve there arose a remarkable wind to break down an immense number of houses and churches, and to injure the trees, and kill many men and animals. AS,p.325

1236 **Stormy year** in Ireland.
Four Masters: Great storms and rain and violent wars prevailed in this year. BW,p.59

1237 **Heavy rains** in February.
Matthew Paris: Also near the beginning of March, namely on the feast of Saint Valentine, violent rains caused inundations, so that the fords and roads, the river banks being destroyed, were rendered impassable for eight successive days. And so that other similar cases may be imagined, the river Thames in England, and the river Seine in France, by the swelling of their floods, destroyed cities, bridges and mills, and made lakes out of dry land over great stretches of country: so much so that for fifteen days, by the extent of the floods, the roads on the banks of the rivers could not be seen. EA,III,p.387

According to Short, December 1236 to March 1237 was " all rainy and great floods ". A,II,p.191

1237 **Very large hail** at Hitcham, Bucks., about June 1.
Matthew Paris: And in the same year, in the week before Whitsun, in the Chilterns not far from a village which is called Hitcham, there fell hailstones which exceeded the size of wild apples and threw down the sheep: continual rain followed. EA,III,p.394

1237 **Violent gale** on November 21.
Matthew Paris: Amongst others who came to the same council was a certain cleric, named Master Walter Pruz, who declared publicly that all the planets were then under one sign, namely Capricorn, causing great disturbances in the air and raising violent winds: and proclaimed that great pestilences of animals, notably of horned beasts (which we call flocks or herds) would follow. And he added somewhat jestingly, " Would that it be not of horned men, that is to say, of bishops ". Not wholly deceptive was the aforesaid opinion. For immediately the church of St. Paul, where they were all congregated, was so shaken by a wind that all, especially the legate, were filled with great fear. Also in the night of St. Cecilia, it being the first day of the moon, hideous clouds, towering and confused, appeared in the west, thunder began to mutter, lightning to dart forth, and wind to rise, and for the night and day following, a most violent wind raged, the like no one remembered having seen before; and this gale lasted continuously for fifteen days or more. Oaks were uprooted and thrown down, houses, towers and buildings which experienced the shakings were cast down, so that the elements were seen to be in accord with the troubles of mankind. EA,III,p.415

1237 **Turbulent year.**
Matthew Paris: This past year was stormy and unsettled as to weather, and injurious to men. . . . EA,III,p.470

1238 **Thunderstorm** on January 19.
Matthew Paris: In the same year terrible thunder was heard on the 14th of the calends of February, with a very violent wind and accompanied by an abundance of heavy clouds. EA,III,p.471

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1238 **Gale** in spring in the Irish Sea.
Chronicle of Man: . . . . they came near to Wales, but endeavouring to enter the port they had determined upon, they were prevented from doing so by a violent storm which suddenly arose, and were shipwrecked upon a rocky place in the same neighbourhood. DO,p.97

1238 **Gale** on September 21.
Matthew Paris: About the feast of Saint Matthew a vehement wind arose so violent that without mentioning other incalculable and irreparable damage, more than twenty vessels were sunk at Portsmouth. EA,III,p.498

1238 **Floods** in many parts.
Matthew Paris: Also in the same year the rivers unaccustomedly and unnaturally burst forth violently upon numerous fields, level ground, and dry and waterless places, and increased rapidly to swift torrents so that fish were taken in them. The air also was unsettled . . . EA,III,p.519
The Waverley Annals place these floods in December: In this year in the advent of the Lord a very great inundation of waters happened in England, by which there was great damage and peril in many places. GB,p.319

1238 **General Character** of the year.
Matthew Paris: Now this past year was cloudy and rainy in its beginning, namely, until the time of spring had passed, whence all hopes of the fruits of seed time died away: truly the drought and heat were beyond measure and custom in two or more of the summer months. Presently in the season of autumn, rain and moisture appeared, whence the fruits were immeasurably refreshed and restored with new growth: and those who delayed reaping had very poor crops. For such deluges of rain fell that straw as well as grain became rotten, and an unnatural autumn (which is held to be a dry and cold season) gave rise to various fatal diseases. EA,III,p.521

1238 Lowe refers to a severe winter in this year quoting "Roland Hist.", an authority not yet traced. No early writer records such a winter. H,p.24

1239 ? **Drought** in Scotland from January to September.
Liber Pluscardensis: In this year from the Sunday after Christmas to the feast of the Exaltation of the Holy Cross, no rain fell on the earth in these parts, and the wines were so strong that no one could easily drink them without water. EE,p.52
It is difficult to gauge the exact year to which the writer is referring but it appears to be about 1239.
Richardson (Vol. I. p. 72) refers to a drought at Newcastle for three months followed by continual rains for a like period, but cites no authority. Probably it is a quotation from a national historian and has been appropriated at some time or other to Newcastle. It would fit, for instance, the summer and autumn of 1238 as described by Matthew Paris.

1239 **Wet weather** from January to March.
Matthew Paris: As spring time drew near, namely, at Easter, the winds and rain floods ceased, which for the preceding four months had continued without intermission to make mire of the ground, extend the lakes, engulf the seed, and to disturb the air. EA,III,p.529

1239 **Detonating Fireball** on July 24.
Matthew Paris, after describing a detonating fireball (of which he gives a sketch), states: All observers of this prodigious sign wondered at it but did not know what it signified. But one thing,

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when the seed had nearly all been choked by the excessive rain, in that same hour the weather became suddenly changed, so that the crops, which only awaited reaping, were saved for ripening and were safely gathered in. EA,III,p.566

1240 **Floods** at Gloucester.
Tewkesbury Annals: There was a great inundation of waters at Gloucester, and hail at Hereford . . . FM,p.115

Short refers to floods in the Thames, and Symons and Chatterton follow him. No early writer mentions these Thames floods and the reference is probably to the Severn floods quoted in the Tewkesbury Annals, or else to the Thames inundations of 1242. (*London, Quart. J. R. met. Sbc., 21, 1895, p. 195.*) A,II,p.197

1240 **Gale** on March 8.
Matthew Paris: On the morrow of SS. Perpetua and Felicitas a wind beyond measure strong and violent perturbed the whole air, which, amongst other marvels, transported a stone that a strong man could hardly raise from the ground, to a great distance from the steeple of a church. EA,IV,p.10

1240 **Dry** from January to March, **wet** from April to December.
Matthew Paris: Now in this past year . . . . drought continued for three months, until March, that is, and then rainy for the rest, but fruitful and abundant: but the wet and rainy autumn greatly choked the abundant crops. EA,IV,p.80

Short's summary for 1240 or 1241 is "very wet till Easter followed by three months' drought and famine, May 7 severe hurricane". This general description is clearly more applicable to 1241 than 1240. The reference to the gale of May 7 appears to come from Holinshed. A,I,p.144

1241 **Gales** early in January.
Matthew Paris: About the same time, especially upon the day of the Circumcision of the Lord and for several days afterwards, an unusually violent north wind damaged buildings and woods, and, imperilling those sailing by sea, inflicted irreparable damage both on land and water, so that the disturbed air appeared to accord with the state of human kind. EA,IV,p.85

1241 **Drought** from March 25 to October 28.
Matthew Paris: The past year was sufficiently abundant in fruits and corn. However, from the feast of the Annunciation of the Blessed Mary until that of the apostles Simon and Jude, continued drought and intolerable heat dried up deep lakes and wide marshes, exhausted the rivers, desiccated the fishponds, and suspended the working of mills, whence pastures withered, verdure perished and herds pined away from hunger and thirst. EA,IV,p.177

1241 **Very cold weather** in December.
Matthew Paris: In the time of winter also, namely, in the advent of the Lord, frost and snow and intolerably bitter cold covered the earth and so hardened it, binding the rivers, that numbers of birds gathered together and perished miserably, the like of which no one remembered having seen before. EA,IV,p.177
The Waverley Annals refer to heavy snows on December 14: On the morrow of St. Lucy a very great snow fell together with an unusually violent gale of wind driving from all directions and men and beasts indoors and out were sorely harassed . . . . the snow with severe frost endured until the vigil of the birth of the Lord. GB,p.329

1242 **Stormy weather** off Scilly in October.
Matthew Paris records the arrival of Richard of Cornwall's ships off Scilly in October. He states: . . . . the other ships, which

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had left the coast with the ships of Earl Richard, were carried about and dispersed by the violence of this storm, and borne away to other shores. EA,IV,p.229

1242 **Thunderstorms and floods** on November 19.
Bartholomew de Cotton: In the same year on the vigil of Saint Edmund there was a great winter thunder and huge floods, so that the river Thames overflowed its usual bounds wherefore in the great hall of Westminster boats were able to float. AH,p.123
Matthew Paris: And in the same year, on the vigil of St. Edmund, a great and manifest thunder and lightning, a sad presage of a future and lengthened tempest, terrified the ears and hearts of men. Nor was the prophecy mistaken. For it was followed by continually unsettled weather lasting for many days, and sad disturbance of the air. Deluges of rain fell, so that the river Thames, overflowing its usual banks, caused floods for six miles around Lambeth, and unseasonably took possession of the houses and fields there. Also in the great hall of Westminster, lawyers, on account of the overflowing of the waters, were carried in on horseback. EA,IV,p.229
Paris drew a picture of a boat in the margin of his MS. and above it wrote the words: Note—an unusual and unprecedented flood.
Later compilers vary in their dates between 1240 and 1243.

1242 Character of the year.
Matthew Paris: The past year was sufficiently fruitful but it was dry and hot, and towards the end generated epidemic fevers and quartans. EA,IV,p.236
John de Oxenedes adds that the winter was very stormy. CY,p.171

1243 **Thunderstorms** on March 1.
Worcester Annals: Thunder was heard on the first day of March before breakfast. GK,p.434

1243 **Great meteoric showers** on July 26.
Matthew Paris: And in the same year, namely on the seventh of the calends of August, the night was most serene, the air was very pure, so that the Milky Way appeared very plainly, as it does on a very quiet winter night. And behold, stars were seen to fall from the sky swiftly, darting here and there. Not, indeed, as happens usually, like sparks shooting in the manner of stars (which, as shewn in Aristotle's Book of Meteors, occurs naturally like lightning out of thunder) but in one instant more than thirty or forty were seen to dart about or fall, so that two or three flew together in one path. So that, if they were true stars (which no wise man thinks) not one would have remained in the sky. Let the astrologers consider what this manner of portent signifies: but to all observers it appeared very marvellous and prodigious. EA,IV,p.249

1243 According to Short this was a dry year and later compilers follow him. Probably however, Short is referring to 1242 which is described by Paris as being hot and dry.

1243 Floods. See in 1242.

1244 **Gale** in Ireland.
Annals of Clonmacnoise: . . . . where there was a tymber house of Couples, into which Magnus mcMortagh, and Connor mcCormack entred, & immediatly there arose a great blast of winde, which fell downe the house, whereof one couple fell on the said Magnus . . . BA,p.238
No precise date is given in the annals.

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1244 **Storm** at Merton on June 2.
Waverley Annals: On the day of SS. Marcellinus and Petrus . . . about the hour of nones, there was a violent tempest, such as had not been seen at Merton before for a long time. GB,p.333

1244 **Gale** on June 11.
de Taxter: A violent whirlwind levelled many trees and houses on the third day of the ides of June. BS,p.323

1244 **Dry autumn**—rain only on August 29.
Waverley Annals: In this year there was an autumn wholly without rain until the feast of the Decollation of the blessed John, and on that day only it rained, and afterwards it did not rain for a long time. GB,p.334

1244 **Thunder and boisterous weather** in November.
Matthew Paris: In the same year, about the middle of this month, that is, November, in sad warning, there was heard a notable thunder, and lightnings were seen, and were followed by great disturbances of the air lasting continuously for 15 days. EA,IV,p.400

1245 **Remarkable snow** in Ireland on December 6.
Annals of Loch Ce: Poisonous snow fell on the night of the festival of St. Nicholas which took off the heels and toes of those who walked in it: and this snow did not disappear until Christmas arrived. BC,I,p.371

1245 **Unseasonable summer.**
Matthew Paris: . . . the fruits of the trees were spoiled by the inclemency of the summer. EA,IV,p.503
The Oseney Annals, a later chronicle, state that there was a dry summer this year in Wales. DZ,p.93

1246 **Wet year.**
Brut y Tywysogion: This year was a rainy year. AS,p.333

1246 **Snow and frost** on April 25.
Matthew Paris: And about the feast of St. Mark the Evangelist, namely, on that day and in the night following, frost and snow bound up the earth, and covering the young branches and their flowers, so weakened them, that the foliage of the trees and shrubs irreparably rotted away. EA,IV,p.551

1246 **Disturbed tides.**
Matthew Paris: It is related by reliable persons that the sea in this year did not ebb and flow upon its shores according to its custom for the space of four or five days, which the inhabitants of the shores and sailors who have business in great waters testified they had never seen before. EA,IV,p.587

1246 **Thunderstorms and gales** on July 19.
Matthew Paris: About this time, so that the elements might conform to the world, on the day preceding the feast of St. Margaret, horrible thunder and lightnings, accompanied as well by hail, the hailstones being angular and very hard, and exceeding the size of almonds, destroyed birds and certain animals, disturbed the whole extent of England, twisted oaks, threw down buildings, burnt human beings, destroyed herds and broke down bridges by the torrents of water and deluging rains; and continued for the span of 16 hours, which was a whole night and a half's duration. EA,IV,p568

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1247 **Very unseasonable weather** following the earthquake of February 13.
Matthew Paris gives a long account of the earthquake of February 13 and adds:: Accordingly it was followed by a prolonged inclemency of the air, an unseasonable and wintry foulness, a boisterousness, a coldness and a raininess, so that the farmers and gardners complained spring was changed into winter by a backward movement, and they greatly feared that their hopes of the seed, plants, fruits and crops would be frustrated. This inclemency of the air endured continuously until the feast of the translation of St. Benedict with hardly a single calm day intervening. EA,IV,p.603
Some of the annalists give differing dates for this earthquake. The Waverley Annals date it March 10 and the Chester Annals February 18 (which is the 10th of the calends of March). The latter account reads : On the 10th of the calends of March about the ninth hour there was a very great earthquake at Holywell. Further, in Cheshire on the same day and at the same hour of the day, there fell great quantities of blood in two granges, so that twigs on the walls of one grange were drenched with this blood : this was seen by many in Cheshire.

1247 Marine Floods. See in 1248.

1248 **Gale** on January 1.
de Taxter : On the night of the Circumcision there was a violent storm of wind. BS,p.324
The Tewkesbury Annals date this December 31, 1247. Probably the storm raged on both dates, and covered a large area as Thordsson alludes to a great thunderstorm at Bergen in January, 1248. FP,p.267

1248 **Stormy weather** off the Shetlands about September 29.
Thordsson : They had one great ship and on her were many good men. They did not come to the Southern Isles that autumn, and that ship was lost, and all that were aboard her. And it is the belief of most men that they were lost south of Shetland in Dynrace because wreckage of the ship was thrown up on Shetland from the south. FP,p.267
Chronicle of Man : . . . . . set out on his return home from Norway, about the feast of St. Michael the Archangel ; when they were near Shetland, a violent storm arose, and the king, with all his company, was shipwrecked and drowned. DO,p.101
The latter chronicle gives the date as September 1249 but the editor of the work considers 1248 to be the true date.

1248 **Marine inundations** on November 24.
Matthew Paris : Also in this same year on the 8th of the calends of December the sea greatly exceeded its usual bounds doing irreparable damage upon its borders. For according to the computation of the kalendar the moon was in the fourth quarter, but the sea thrice flowed with swollen waters without any notable decrease or ebb. It was believed that this was due to the force of a very strong wind blowing from the sea, but it often happens that the wind blows from the sea, and yet the sea does not violently rise, so that even old men were astonished at this unheard-of novelty. EA,V,p.30
Short dates this in 1247 and 1248. Walford gives 1247–1251 ! K,p.25

1249 **Very mild** in early part of year.
Matthew Paris : The whole weather of winter was changed into spring so that neither snow nor frost covered the face of the earth, nor bound it in their customary manner, for two days together ; trees were seen to be sprouting in February and young birds singing and sporting as though it were April. EA,V,p.47

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Thomas Wykes apparently allocates this mild weather to the early part of 1250. Paris' account is strictly contemporary and earlier than that of Wykes so that 1249 is probably the correct date.

Wykes' account is: In winter there was such temperateness of the air and calmness of the winds, that it was popularly said that winter was turned into summer: for neither snow nor frost was seen to come in throughout all England; but at the end of March and beginning of April and up to the middle of May such cold made people shiver that, casting off linen, they were compelled to resume double clothing. GL,p.97

1249 **Heavy snow** on February 19.

Matthew Paris: Also about the same time a general tournament was appointed at Northampton on Ash Wednesday but it was prevented by the prohibition and threats of the king and the inclemency of the season. . . . However, on that day, namely Ash Wednesday, such an abundant snow fell continuing for two days that the whole surface of the earth was covered to the depth of a foot, and heavily loaded branches of trees being broken down, and, the snow melting, the furrows of the fields dilated like caves, being filled with the waters that ran into them. EA,V,p.75

1249 **Heavy rains** at Abingdon in early June.

Matthew Paris: About the beginning of the month of June such deluges of rain fell in the parts about Abingdon that the willows and the trees, and the houses near, even the sheep with their pens, and the saltpits and the mills with their bridges, and a chapel built not far from Abingdon, were carried away by the rivers and torrents. Also the green corn and the maturing ears only then flowering, were levelled to the ground. . . . EA,V,p.75

Short's date for this event is 1250. A,II,p.191

1249 **Gale** in October.

Some of the London chronicles mention a gale in October of this year. Gregory says it was on the day of SS. Simon and Jude. Another chronicle gives it on the Thursday previous to that day. If 1249 is the correct year, these dates are October 28 and October 21, respectively.

Gregory's account is: And that same yere on Saynt Symon and Judys day ther was a grete wynde and dyd moche harme in many placys of Englonde. CH,p.67

1249 **Thunderstorm** on December 28.

Tewkesbury Annals: Thunder was heard on the day of the Holy Innocents. FM,p.139

1249–1250 According to Watson there was a severe and long winter here. No note of this is to be found in any native historian (*London, Quart. J. R. met. Soc.*, 27, 1901, p. 141) except that the *Annales Cambriae* record "The bridge at Camarthen was broken by the pressure of the ice".

No other particulars occur. AP,p.88

1250 Heavy rains. See in 1249.

1250 **Thunderstorms.**

de Taxter: The same year there was a storm of thunder and lightning at daybreak. BS,p.326

No precise date is given. Perhaps this is the same storm as described by John de Oxenedes, also without date: In these days there was rumbling of thunder, lightning threw down walls of towers and the greatest oaks, and floods of rain made the roads impassable. CY,p.182

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1250 **Marine Inundations and Storms** on October 1.

Several chroniclers allude to these events. There is a long account in Matthew Paris: About this time, namely on the first day of October, the moon being in the first quarter, there appeared a new moon, swollen and red, as a portent of future tempests, according to the experimental writings of the philosopher and poet,

> Promittit de more rubens nova Cintia ventos,
> Caumate vel Borea valido nisi præpediatur;
> Turgida dat nimbos, sed pallida clara serenum.

In the first week of the increase of the moon, therefore, the sky daily was covered with a thick cloud, and was greatly disturbed by the boisterousness of the winds; and the wind began to tear off and throw down branches and foliage, which were then dying on the trees, and carried them to great distances through the air. And what was more destructive, the troubled sea crossed its usual bounds, flowing twice without ebbing, and gave forth such a horrible roaring and crashing that it resounded in places a remote distance from it, being heard with great amazement, and indeed old men and none of modern days remembered seeing the like before. There was also seen in the darkness of the night the same sea burning like fire, and waves struggled, crowding on waves, so that the skill of sailors could not aid their ships. Thus large well-built ships foundered and perished. Without mentioning others, at one single harbour, that of Hertburne, besides small and medium ships, three noble vessels were swallowed up by the tempestuous waves. At Winchelsea also, a harbour in the eastern parts, besides the hovels of the salt makers and the storehouses of the fishermen, and the bridges and the mills, more than 300 houses in that same village with a number of churches, by the violence of the rising waters were submerged. Also Holland in England and Holland over the sea, with Flanders, and the flat places bordering the sea, sustained irreparable damage. Also the rivers flowing into the sea were so much forced back and swollen that meadows, mills, bridges and houses in their neighbourhood were destroyed, and, occupying the sown lands, they carried away the crops which had not yet been stored in the barns: the wrath of God manifestly appeared to mortals in the sea as well as on the land. . . . EA,V,p.175

1250 **Thunderstorm** on December 24.

Matthew Paris: Also at this time, namely in the night of the birth of the Lord, as a sign, it was feared, of God's wrath, very dreadful thunder resounded, notably in the diocese of Norwich and the neighbourhood, terrible flashes of lightning darted forth, and a tempestuous perturbation of the air was heard, and the hearts and minds of the beholders were likewise struck with fear and horror. The augurs said that this occurred as a sad prognostic. EA,V,p.198

1251 **Thunderstorm** on January 26.

Tewkesbury Annals: On the night following the Conversion of St. Paul thunder was heard and lightning was seen. FM,p.142

1251 **Severe winter** in Ireland.

Annals of Loch Ce: Great frost in the early winter so that the lakes and the bogs and the waters were frozen. BC,I,p.399

This is not mentioned in any other native chronicle. Several compilers refer to a severe winter in this year, and Lowe cites a foreign source, the *Chronicon Magdeburgensis*. H,p.24

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1251 **Marine inundations** in spring.
Matthew Paris: Also in this year, at the same time, namely in spring, the sea overflowed its usual bounds in parts of England, inflicting no little damage in the neighbouring places. The shores indeed were covered to the depth of six feet more than has ever been seen. EA,V,p.264

1251 **Snow** on May 27.
Tewkesbury Annals: On the morrow of St. Augustine it snowed in the cloisters. FM,p.144

1251 **Violent thunderstorms** on May 19.
Matthew Paris: About the same time of year, that is, in summer on the day of St. Dunstan, a thick cloud arose in the morning over the whole world, as it seemed, darkening east as well as west, south as well as north, and thunder was heard as if at a great distance, with lightning preceding it. And about the hour of prime, the thunder and lightning approached, one clap being more terrible than the others, as if the sky bore down on the earth, the ears and hearts of all who heard being suddenly struck dumb. With that crash a thunderbolt fell upon the queen's bedroom, where she was then staying with her sons and family, and crushing the fireplace to powder, threw it to the ground and shook the whole house. And in the neighbouring forest, namely that of Windsor, 35 oaks were thrown down or split asunder. In addition, certain mills with their millers, and sheep pens with their shepherds, and several farmers and travellers were crushed. And much damage was inflicted upon mortals such that we who write this have not seen nor heard before. At St. Albans also lightning fell upon a washing place in that monastery but not much damage was done: but traces appeared in the walls for many years after. But what is wonderful and worthy of note is that, on the same day at St. Albans, the brethren of the Preachers, or Minors (as was done almost daily), were received for shelter and meals, and could not by the earnest appeal of the monk who received and provided for them be restrained from going out, the storm not having ceased: and on going out of the town they saw meeting them a torch like a kind of drawn sword, and thunder and a dreadful murmuring continued afterwards in the road, which was a public street and worn nearly smooth by men and carriages. And turning aside they signed themselves with the cross and began to invoke the Holy Ghost by singing "Veni, Creator Spiritus," and that which follows it, with fear and devotion. And the thunder and lightning were dulled and the fire passed away from them while they themselves were uninjured. EA,V,p.263
John de Oxenedes is evidently referring to the same storm: In the same tempest great lightning fell at Windsor where the King was now living with his sons and all his family, and several houses were burned and many damaged, such as we have not heard of nor seen before. CY,p.187
Bentley quotes this event in his list as on March 1. (*London, Quart. J. R. met. Soc., 31, 1905, p. 108.*)

1251 **Heavy rains** in Roscommon on June 29.
Annals of Loch Ce: Thunder and lightning came in the summer of this year by which many men and cattle were killed in Erinn. A great shower fell on the festival day of Peter and Paul so that a boat sailed all round the town at Kilmore on the Shannon, and a mill could grind in the stream which flowed from the arch to Ath-na-faithcha, during the time vespers were being chaunted in the church of Fenagh on the same day. BC,I,p.397

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Lowe gives this as a hot summer quoting the Annals of Connaught, evidently alluding to the above event. Short says 1251 had a very hot summer and that the harvest was early and good. Luckombe and Lowe say, however, that there was a famine this year! H,p.24 A,I,p.147 G,p.14

1251 **Thunderstorm** on August 16.
Walter de Hemingburgh: In the same year on the 17th of the calends of September, being the fourth day of the week, terrible lightning lasted from midnight until morning. FZ,I,p.302
The date in question was Thursday in 1251, not Wednesday.

1251 **Heavy rain** on September 17.
Matthew Paris: In the night of St. Lambert, that is on Sunday night, the darkness was dreadful and could be felt, and there happened a great deluge of rain so that the channels of the air were uncovered to the cataracts and the clouds were seen to pour out upon the earth to destroy it. EA,V,p.258

1251 **Gale** on October 26.
Walter de Hemingburgh: Also in the same year on the 7th of the calends of November, being the fifth day of the week, an unprecedented wind threw down houses and loosened stones.

1252 **Easterly gale** on January 13.
Matthew Paris: And also in this year, namely on the octave of the Epiphany, during the day and the night which followed, a raging east wind and an angry south-westerly wind occasioned much damage, and with horrible roaring blasts and violent beating, drove back the waves of the sea from the shores, and unroofed or destroyed houses. The largest oaks were torn up by the roots, or it split them asunder, stripping off their leaves: it tore the lead off the churches, sunk in the deep the largest and stoutest ships, and inflicted great and irreparable damage, which, however great on dry land, was manifestly ten times greater at sea. If we are silent about other injuries and damage we will introduce an account of what we experienced. At the harbour of Winchelsea, a very necessary one to England and especially to London, the waves of the sea, as if indignant and furious at being driven back on the day before, covered places adjacent to its shores, and washed away and drowned many men. And so as to be more fully informed of the other unexpected events which happened elsewhere, in the cemetery of the blessed Alban, three oaks, which three men could hardly encompass with their arms, were torn up by the roots, and foliage was furiously torn off others. EA,V,p.272
This gale was evidently felt in Ireland. The Annals of Loch Ce record: Great wind on the octave of the Epiphany which prostrated several houses and churches throughout Erinn. BC,I,p.399

1252 **Unusual state of the sky** in March.
Matthew Paris: Also about the same time, namely on the morrow of St. Gregory, being the fourth day of the week and near the change of the moon, it was seen four days before its first appearance was due: its true first appearance was on the coming Saturday. Afterwards the sun, moon and stars were seen of a reddish hue as if a dry cloud or smoke covered the whole space of the world, the wind blowing from the North and East. EA,V,p.278
Matthew Paris alludes to this drought in a later note (q.v.).

1252 **Very hot and dry summer: very wet autumn.**
Brut y Tywysogion: The heat of the sun was so great that all the earth became so dry therefrom, that no fruit grew on the trees or

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in the fields, and neither fish of the sea nor of the rivers was obtained. And at the end of the harvest of that year, so great were the rains that the water floods covered the face of the earth, since the excess of the dryness of the earth could not absorb the waters ; and the rivers flooded so that the bridges and the mills and the houses adjoining the rivers were broken, and the woods and orchards were stripped, besides many other losses during the summer. AS,p.339

Possibly this may describe 1253 rather than 1252 but these two years were probably very similar.

The Irish chronicles also have reference to this drought. The Annals of Loch Ce : Great heat and drought in the summer of this year so that people used to cross the Shannon without wetting their feet : and the wheat was reaped twenty nights before Lammas, and all the corn was reaped at that time ; and the trees were burning from the sun. BC,I,p.399

Numerous English chronicles have an account of it. Thus Matthew Paris : In this same year, in most of March and the whole of the months of April and May, the ground was burnt up by the sun, the wind continuing from south-west, north or east. Therefore by the increased causes of heat and drought, and by the cessation of refreshing dews, apples and other fruits which had already appeared and were increasing as plentifully as nuts, rotted away and fell off useless, hardly any part of them thriving, although the preceding flower promised a great harvest of fruit. Also the loss of the residue of the fruit was increased when they had already become as large as acorns, by a sudden morning frost accompanied by unnatural lightnings (which the natural philosophers call blighting) : it burnt up the ripening apples, acorns, beechnuts and all kinds of fruit and even grass, so that hardly a tenth part remained. However, on account of their former original abundance, the apples in the orchards and the crops in the fields were plentiful : and if all the germinating fruit had remained, the trees could not have supported all the fruit they produced. However, the sun rose up to its solstitial culmination, and its immoderate and intolerable heat so burnt up the earth's surface and multiplied its warmth, that all the herbage withered away and the meadows denied all manner of food to the cattle. Moreover, the heat continued into the night and generated flies, fleas, and other injurious pests, and all things living endured a tedious life. EA,V,p.279

Later the same writer says : Also in the same year in the months of April, May, June and July, heat and drought prevailed intolerably without beneficial sprinkling of rain or dew during that time. Whence the flowers of the trees which promised abundance of fruit, fell off uselessly ; the meadows were spoiled of their grass, the foliage of the plants rotted away, and the fields denied pasture to the wasting herds. The earth became hardened with cracks and fissures, and for want of moisture could not minister to the nourishment of the crops. Flies flew about buzzing, birds drooped their wings and opened their bills, and ceased their pleasing songs. EA,V,p.317

John de Taxter adds a note about thunderstorms : This year many died from the excessive heat of the summer. Also awful thunder claps were heard on the morrow of the Assumption of the Blessed Virgin. BS,p.327

Robert of Gloucester :

In the year of grace twelve hundred and fifty and two,
In this year was the summer so dry and so hot,
That even until this day there has been none hotter.

Robert's account was written about 1270.

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1252 **Wintry weather** about October 13.
Matthew Paris: Moreover, our lord the king forced the men of London, willy nilly, to attend the fair which he had appointed at Westminster upon the feast of St. Edward (to continue for fifteen days to the detriment of the fair of Ely) and to close their windows in the city of London. He did not spare them on account of the inclemency of the wintry weather, the mud, the rain and the unsuitability of the place, but, rather, compelled them to stand in their tents. Also he commanded them to expose their goods, although no buyers appeared, not being afraid of the curses of all of them. Therefore all became very fatigued, both those who had come there and those who dwelt there. For deluges of rain fell all the time that the multitudes were arriving from all parts of the kingdom, staying there and returning, so that they were soaked, covered with mud, drenched, fatigued and sadly taxed and oppressed; on their journey, also, all the fords were barely passable, with the bridges broken down, the roads hardly usable, the city exceedingly muddy, and provisions and other necessaries exceedingly dear, so that they were miserably involved in inextricable difficulties. EA,V,p.334

1253 **Thunderstorm** on April 22.
Tewkesbury Annals: On the tenth of the calends of May was heard the first thunder. FM,p.152

1253 **Dry summer and wet autumn.**
Matthew Paris: About these same days a certain notable thing happened and was reported by many, namely, that in this year there was in the spring and summer a great and prolonged drought, but at the end of the summer and in the autumn, the rivers overflowed their banks and rose to the top of the hills drowning the adjoining places. And at the end of the autumn and after the feast of St. Michael, the deluges from the many rains having dispersed, there was so much drought of the rivers and the springs, and a diminution and lack of water, that those desirous of grinding their corn carried it nearly a day's journey to be ground. A similar prodigy happened in this year in the spring time contrary to the nature of the season: for at the time of the equinox with the whole weather moderate, there is customarily peace in the elements. EA,V,p.395

Brooks and Glasspoole consider these two years 1252 and 1253 to be the driest of which we have any historical account. There is a similar note in the *Meteorological Magazine*, 63, 1928, p. 4. R,p.153

1253 **Marine inundations** in October, notably in Lincolnshire.
Chronicon Petroburgensis: About the feast of St. Dionysius there were great floods in Holland. EC,p.16
Trivet: In parts of England, those called Holland and Holderness, by a great inundation of the sea, parts of the land, with their houses and inhabitants were washed away. FR,p.242
Fabyan dates these inundations "about ye day of seynt Pawlyn in the monyth of Januarii" but the Paulinus referred to is probably the one whose feast is on October 10. Later he says: This yere also, the water of Thamys sprange so hygh that it drownyd many housys about ye waters syde, by mean wherof moche marchaundyse was perysshed and loste. . . . BP,p.338
Matthew Paris in summing up the year 1253 says: The past year was abundant in crops and fruits. . . . But the gain to the earth was lost to the sea, which overflowed its banks. EA,V,p.420

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1253 **Thunderstorm** on December 14.
Matthew Paris: In this same year, on the morrow of Saint Lucia, the clouds shed an abundant snow and wintry thunder announced direful prognostications. EA,V,p.418
Short in referring to this event adds " a great hurricane " to the phenomena. A,I,p.149

1254 **Aurora** on January 1.
Matthew Paris: Indeed, in the night of the Lord's Circumcision, at midnight, the air being most serene, and the sky covered with stars, the moon being eight days old, there appeared in the air, marvellous to relate, a kind of large ship, elegantly shaped, equipped and of marvellous color. Certain monks of St. Albans saw this appearance, being at St. Amphibalus' to commemorate the festival, and looking at the stars to see if it was yet the hour for singing mattins, and they called together all of their familiar friends who were in the house to see the marvel. It appeared for a long time as if it were painted and in truth a ship made of planks, but finally it began to disappear: whence it was believed to be a cloud but a marvellous and prodigious one. EA,V,p.422
This auroral display was evidently seen very early in the morning of January 1.

1254 **Cold weather** in January and February, ceasing on March 12.
Matthew Paris: Also on that day the bitter frost ceased, which had continued nearly the whole winter, that is, since the night of the Circumcision, when a certain ship clearly appeared in the air, or a cloud resembling a ship, but stupendous. The vision was then believed to be a sign of future tempests. It was followed besides by a deadly disease of sheep and wild animals. . . . EA,V,p.427
Short mentions this severe winter but adds from an unknown source " with North winds ". A,I,p.149

1254 **Lightning** in northern Ireland on May 3.
Annals of Ulster: Lightning fire came on the night of Sunday on the feast of the Cross in summer in the town of Ui-Ruadaghan at the wood of Conall and nine persons were burned in a house there. FT,II,p.319

1254 **Much north-easterly wind: heavy rain and hail** on July 1.
Matthew Paris: Concerning also the wonderful wind which happened in this year: namely, the north and east wind continually blowing in the spring for three months and several days, which blasted the flowers and the fruit. And about the calends of July, namely in the time of the solstice, quite suddenly inundations of rain broke forth with very violent hail of a kind not seen before, which lasted for an hour or more, breaking off tiles and parts of houses, and stripping branches of trees. EA,V,p.448

1254 **Heavy rains and thunderstorms** on August 14.
Matthew Paris: In this same year also, on the vigil of the Assumption of the Blessed Mary, about the hour of prime, suddenly accompanied by the rush of an unusual inundation of rain, there was heard a single clap of thunder with lightning, which fell on the tower of the church of St. Peter in the town of St. Albans, and which penetrated into the upper part of it with a horrible crash, twisted the oaken material like a net, and what was marvellous, ground it into fine shreds. The lightning also left a smoke in the whole tower and an intolerable stench. EA,V,p.455

1254 **Thunderstorm** on October 26
Matthew Paris: On the morrow of SS. Crispin and Crispian a horrible wintry thunder and deluge of rain disturbed the ears and souls of the beholders. EA,V,p.465

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1254 **Very unseasonable summer.**
Matthew Paris: In the same year, from the day of the Ascension to the feast of All Saints, hardly two or three serene days passed without continued disturbance of the air. EA,V,p.465
The same writer adds later: In the same year, namely, in the time of autumn, when tillers of the soil are accustomed to secure the reward of their labours, all the ground bounded by and in the neighbourhood of the sea, which they had sown diligently, was saturated with salt, and found to be devoid of all crops. For the sea, as stated already, had occupied during the winter time all the shores and the neighbouring bounding lands: so that no crops could appear, nor did the woods nor the orchards become green, or put forth leaves, flowers or fruits. And as to the other damage, we may signify by an example—the prior of Spalding alone, who could not, in all his lands bounding on the sea, boast of gathering even one single sheaf of corn. Also the trees of the woods as well as fruit trees were so dried up that they were only suitable for cutting down. (He then describes similar trouble in Flanders). EA,V,p.461
These events are apparently allocated by Short to 1255. A,II,p.191
Apparently Ireland was better off than this in 1254. The Annals of Loch Ce report: This year was an excellent year, with abundance of oak fruit, and with abundance of milk, and of all other good things besides. BC,I,p.405

1254 **Floods** on November 20.
Burton Annals: A sudden inundation of waters, not on account of rain, happened this same year before the feast of St. Edmund, king and martyr, by which the greater part of Bedford was carried away, and several villages in the fens, and many people of both sexes, old and young, and also infants in cradles, were submerged and lost. And likewise in the waters of the Trent. AO,p.323

1255 **Gales** in February and March.
Matthew Paris: In this year from the feast of St. Valentine for a month following, a violent wind with heavy rains day and night, both by land and by sea, caused unheard-of disturbance. EA,V,p.488

1255 **Drought** in April.
Matthew Paris: There was then very unsettled weather, the north wind blowing nearly the whole spring, which is very inimical to the flowers and the sprouting trees. And throughout the whole of the month of April, neither shower nor dew moistened the dry earth or gave it any warmth. . . . The air, however, parched by the blowing of the north and east winds, assumed the color of citrons and generated sicknesses. EA,V,p.495

1255 **Drought** in summer.
Matthew Paris: In this same summer there was a drought due to the east winds continuing, taking away the morning dew and suspending that of the evening, from mid-March to the calends of June: the grains of corn were seen lying in the dust whole, not decaying so as to germinate and perfect their increase. However, by the providence of Him who sends rain upon the just and the unjust the earth with its half-dead roots and seeds, felt beneficent rains and seasonable sweet refreshing dews, so that by the grace of God, decay was turned into living sap, and everything revived promising a harvest of fruit. EA,V,p.496

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1255 **Thunderstorms** with hail on July 13.
Burton Annals: There happened also at this time, on the third of the ides of July, a certain tempest of hail in the Trent valley, from the bridge at Wychenofere to Rependonam marvellously beyond the ordinary, it being stated that nothing like it had been seen in these days. . . . There was widespread destruction of crops in the valley of the Trent by floods of waters such as had not happened for a long time. AO,p.336

1255–1256 **Wet winter and spring : gale** on January 30.
Chronicon Brevius : In this year on the Sunday before the Purification there was an earthquake before dawn, a great gale, and rain the whole winter from the feast of All Saints until Whitsun. AX,p.303
Presumably the wet period is intended to refer to November 1, 1255 to June 4, 1256. This is also recorded by William of Newburgh's Continuator.

1256 **Severe thunderstorms with heavy rain** on June 19.
Matthew Paris: And the third day following, an extraordinary storm of wind and rain, or rather driving rain, with hail and thunder and vivid lightning, filled the souls of men with fear and immense damage was sustained through the disturbance. The mill wheels were seen to be wrenched off their axles, and transported by the force of the waters to great distances, destroying neighbouring houses. And what the waters did to the water mills, the wind did not spare to do to the windmills. The piles of bridges, stacks of hay, huts of fishermen with their nets and poles, and even babies in cradles were suddenly carried away, so that it looked as if the floods of Deucalion were come again. And not to mention others, Bedford, which is watered by a river called Ouse, as it did a few years before, suffered damage beyond estimation. Indeed in one place, a block of six adjacent houses was transported by the rapid torrents, the inhabitants hardly being able to crawl out of them. And other places on the banks of this river were exposed to similar perils. EA,V,p.561

1256 **Severe thunderstorms** on July 25.
Tewkesbury Annals: About the feast of the blessed James there was very terrible thunder and lightning about midnight. FM,p.157

1256 **Gale** on October 5.
Tewkesbury Annals: On the night of St. Faith, virgin, a great and tumultuous wind lasted almost the whole night. FM,p.157

1256 **Gale** on October 26.
Knighton: Also in the same year on the 7th of the calends of November, being the fifth day of the week, there was an unprecedented wind which overturned houses and shook down stones. DE,I,p.236
Short records this but adds that there was hail and thunder. Possibly he is confusing this gale with the storm reported by Matthew Paris on October 26, 1254. A,I,p.150

1256 **Thunderstorm** on November 15.
Knighton: In the same year on the 17th of the calends of December, being the fourth day of the week, there was terrible thunder from midnight until morning. DE,I,p.236

1256 **Severe thunderstorm** on December 28.
Matthew Paris: In this same year on Innocents' day there was such a deluge of rain that the surface of the earth was covered and it looked as if the times of Deucalion were returned. Whence the furrows assumed the appearance of caves, or caverns of water, and the rivers covered the meadows, and the whole country,

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making it look like seas. And to understand other similar cases, one river alone in the northern parts of England carried away seven large wooden and stone bridges. Also the mills and neighbouring houses, by the violence of the rivers swollen into torrents, perished and were destroyed. Again, on this memorable day, a certain fierce whirlwind disturbed the air and darkened it like unto night, accompanied with violent hail: and the clouds became thickened, emitting lightning and darting forth coruscating and terrible flashes. The thunder obviously sounded a sad prophecy. For it was in the middle of winter and the cold was more like that of February. This was succeeded by unsettled sickly weather lasting for about three months. EA,V,p.607

1256 **Rainy year** from August to February, 1257.
Matthew Paris: The past year was tolerably fruitful. . . . beyond measure stormy and rainy, so that it looked as if Deucalion's times were renewed, so much so that from the Assumption of the Blessed Virgin until the Purification, rain did not cease to fall in deluges daily, the roads became impassable and the fields were made sterile, whence by the end of autumn the grain putrified in the ear. EA,V,p.600
The Lanercost Chronicle states: In this year there was throughout all England and Scotland much corruption of the air and inundation of rain. . . . DH,I,p.64

1257 **Stormy weather** until May.
Matthew Paris: And it is known that, until this time, that is, the first of May, from the first day of February the whole of England was turned into a bog and a quagmire by the turbulent winds and the foul storms. The furrows were turned into caves and the caves into marshes. The rivers were changed into arms of the sea and so for three months the earth was rendered sterile and unfruitful, whence many farmers had to retill their lands. EA,V,p.630
Possibly this description refers to 1256.

1257 **Heavy rains** in summer.
John de Taxter: This year there were excessive rains, causing such vast inundations, that on the ides of July, houses, walls and trees were thrown down, the hay was swept off by the force of the current, and bridges without number demolished. BS,p.330
John de Oxenedes: In the same year before the octave of St. Benedict, the moon being nearly full, there commenced such floods of rain that the earth was drowned, and bridges, houses and mills were borne away, the roads made impassable, the hay wasted, and the crops completely destroyed. Whence a great and numerous congregation of the faithful, and the convent, celebrating a fast in solemn procession, carried the martyr Alban to St. Mary in the Meadows, as was usual in such times of peril. By this the tempest was made immediately to cease and so, I may add, the crops and fruits were saved and were in general abundant. CY,p.212
Matthew Paris gives an account of this and it would appear that the fast and procession took place in August. EA,V,p.645

Several writers allude to dearness in this year. Matthew Paris' summary is: This past year was sterile and meagre. Whatever was sown in the winter, whatever was shewing promise by flowering in spring, whatever ripened in summer, the floods of autumn choked it. . . . For there was neither a temperate nor a serene day, nor was even the surface of the lakes hardened up by the frost, as is usual, nor were icicles hanging, but the continued inundations of rain thickened the air until the Purification of the blessed Virgin. EA,V,p.674

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1258 **January mild, but February and March cold.**
Matthew Paris: Also in this same year the serene air of autumn and its temperateness continued until the end of January so that nowhere and at no time was the surface of the waters frozen up. But from that time, that is, from the Purification of the Blessed Virgin to the end of March, the north wind blew continually, frost, snow and intolerable cold prevailed, the face of the earth was bound up, the poor were afflicted, cultivation was suspended and the young cattle were killed, so much so that a murrain of sheep and lambs raged generally. EA,V,p.674

1258 **Backward spring.**
Matthew Paris: Also in this same year the north wind blew continually for several months, when, April, May and the principal part of June having passed, the little flowers of rare and small plants were seen hardly to have germinated. . . . EA,V,p.690

1258 **Heavy Rains** in mid-June.
Tewkesbury Annals: A great tempest of flooding rain, snow, ice, heavy thunder and horrible lightning happened suddenly before the feast of St. John Baptist, namely, on the twelfth of the calends of July, covering the country beyond the banks of the river Severn from Shrewsbury up to Bristol. And by this flood all grass likewise adjoining the Severn and the crops were lost and destroyed, displeasing both to men and animals. Submerged also in the same were horses, and many men, and children of both sexes. FM,p.162
William Rishanger mentions these events but places them in 1259.

1258 **Rainy autumn.**
de Taxter: A general scarcity was the consequence of the inundations of the previous year; for, what had rarely happened, the quarter of wheat was sold for as much as fifteen or even twenty shillings. This caused such a famine, that the poor devoured horse flesh, the bark of trees and things still worse, while multitudes died of starvation. The same year, all sorts of corn, of which there was a crop, were nearly rotted by the rains of the autumn, and in many places the harvest lay in the fields after the feast of All Saints; and many persons gathered into their barns on Sundays and other feast days, when the weather happened to be somewhat fair. BS.p.331
Dunstable Annals: In the same year we had a very late and tedious autumn on account of the continual and persistent rains, so that the corn was very nearly ruined and was with difficulty stored up, before the feast of St. Martin, with rushlights. BF,p.210
Many other writers give similar accounts.

1258 Matthew Paris has the following note: Now this past year was very dissimilar to all previous years, that is, it was unhealthy and mortal, stormy and exceedingly rainy, so much so, that, although in summer time the harvest of crops and an abundance of fruit seemed promising, yet in the time of autumn continual heavy rains choked the corn, fruit and also vegetables, and at the Advent of our Lord, in some parts of England, as we have said above, the barns remained empty and the crops ready for gathering, but corrupted. For while the grain was germinating, it rotted with the straw. . . . EA,V,p.728

1258 **Gale and thunderstorm** on December 1.
Matthew Paris: In the following month, namely in the first night of December, there happened a thunder and vehement and horrible

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lightning, the winds and clouds uniting in floods of rain, in sad presage to all who heard it, thunder in winter always signifying some evil.

John de Taxter: In the same year, a violent wind blew down a number of houses, trees and towers on the night of St. Andrew, at which time the king was at St. Edmunds. BS,p.332

de Taxter's date is November 29. Possibly the whole period from then to December 1, was stormy.

1259 **Dry autumn.**

Matthew of Westminster: In this particular year many things grew in moderate abundance and the dry weather at harvest time preserved an unexpected sufficiency. DQ,p.370

1259 According to Short there was a hurricane on December 28, but no earlier note of this has been found. Possibly a quotation from some foreign source. A,I,p.151

1260 **Drought** in the summer.

Waverley Annals: Such a great and prolonged drought happened in the summer that barley and oats in many places even in the autumn remained hidden under the ground. However, later the showers dropping upon the earth were sufficiently abundant, and soon the seed came forth and began to put out ears, but by the deficiency of the natural heat of the sun, they could not ripen, and about the feast of St. Michael they were reaped in their greenness, not without great and incalculable detriment, and yielded fodder for the animals. (There follows an account of a man at Hungerford who blasphemed because of the drought. His arms suddenly remained immovable but he was finally rescued from this predicament through the merits of the blessed Edmund.) GB,p.351

Short's account " no rain all the year to August, then moderate showers, only oats and barley lost " is evidently derived from the above record. A,II,p.201

1260 **Thunderstorm** on June 23.

Winchester Annals: A very great tempest and huge thunder, lightning and very large hail happened on the night of St. John Baptist. GH,p,98

Matthew of Westminster has evidently this storm in mind: Also there were such tempests of hail, and that not only of little stones like peas but also of great stones of three fingers breadth, and in some places of fifteen also, and in other places (as was asserted upon oath) great stones fell of a weight requiring three men to lift them. DQ,p.375

1260 **Thundery summer.**

Matthew of Westminster: Also in the summer of this year great and enormous portents happened in the air, so that some people said that the last judgment was immediately near . . . so many and such continuous thunderstorms, that hardly anyone was bold enough to leave his house; not a few people were killed, houses, crops and woods were consumed, and other unheard of dangers were incurred everywhere. DQ,p.374

The London Annals also refer to these events. DK,p,56

1260 **Fine weather** at Christmas.

Matthew of Westminster: And at this time there was such continued fine weather and serenity of the air, that one would have said that it was pleasant summer time rather than winter. DQ,p.378

1260–1261 **Sharp wintry weather** early in 1261.

Matthew of Westminster: Now about the Purification of the blessed Virgin, when the serenity of spring was due, there was

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such continued snow and ice for fifteen days that no one for several years had seen such weather and contrariety of the air. DQ,p.377

William of Newburgh's Continuator: In this year there was a very bitter winter. GE,p.539

Fabyan: This yere, the froste began about seynt Nycolas daye & so contynuyd by the space of a moneth and more so feruentlye, that Thamys was ouer froren that men passyd ouer on horsebacke. BP,p.348

No earlier writer than Fabyan seems to refer to this freezing over of the Thames. The rubrics vary somewhat in the different chroniclers but February, 1261, would appear to be the wintry period intended. Easton does not give any references to a severe winter in either 1260 or 1261.

1261 **Thunderstorm** on July 27 at Evesham.

Matthew of Westminster: On the sixth of the calends of August, flashes of lightning, darting violently, terrified the northern parts. At length, at Evesham, a huge bolt fell from the skies, and the stone situated at the edge of the angle of the higher part of the tower was ejected with such force that it fell into the choir and was violently shattered, penetrating into the ground; it was nearly a foot in length. And soon the roof of the tower was burning from above on account of the lightning through a distance of about 30 feet or (as some maintain), 50, including the weather vane. . . . DQ,p.380

Several chronicles mention this notable storm at Evesham. DK,p.58

1261 According to Short this was a very wet year. No native historian refers to this although several mention that there was a dearth. A,I,p.152

1262 **Hot summer.** See in 1261.

1262 **Violent thunderstorm** about June 24.

Worcester Annals: There arose such a great and horrible tempest of thunder and lightning about the feast of St. John Baptist that the granges of Grimley and Hinwick were thrown down and great growing trees with the whole of their roots were levelled, and our crops utterly ruined. GK,p.447

1262 **Storm** on November 30.

Matthew of Westminster: About the time of the feast of St. Andrew the apostle there was a violent storm of wind, which threw down not only houses and trees, but also towers, whether built of wood or stone: owing to which, the church at Croyland, or at least the greater part of it, with the town, fell down and overwhelmed five men standing beneath it.

c.1262 **Floods in the Tay and Forth.**

Boece: . . . and in the samin yer, the watteris of Forth and Tay rais with sic inundation of spait, that many tounis wer drounit, to the gret dammage of men and bestis. (Bellenden's Translation, Vol. II, p. 358).

Boece puts this in the XVIIth Alexander III. Sir H. Nicolas' Chronology makes this 1262 or 3.

1263 **Hot summer in Ireland.**

Annals of Loch Ce: A very hot summer in this year. BC,I,p.447

Annals of Clonmacnoise: There was a great drought this yeare in the earth & a very hott summer. BA,p.244

The Clonmacnoise Annals date this, however, in 1262.

1263 **Drought in summer** in England: **wet autumn.**

Melsa Chronicle: In which year the earth by the fierce heat of summer was so dried up that there was no fruit, and at the end of the autumn so much rain poured down that the earth could not immediately dispose of it. DS,II,p.128

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1263 **Aurora** on July 29.
Matthew of Westminster: In the same year on the fourth of the calends of August, a certain very stupendous and wonderful sign appeared in the sky in the northern parts about midnight. DQ,p.384

1263 **Violent gale** off the Cumbraes on October 1.
Thordsson: King Hacon lay in the Cumbraes—Michaelmas was then on a Saturday. But the Monday night after came a violent storm with hail and tempest. Before day, in the night, they called out who kept watch at the moorings of the king's ship that a bark was driving on the cables forward. Then men jumped up hastily and tore down awnings and clad themselves. The stay of the bark caught the figurehead of the king's ship and carried away the beak. After that the bark drifted aft along the sides until her anchor fouled and caught the cable of the king's ship. Then the anchor began to drag. Then the king bade them cut the cable of the bark's anchor and so they did. She then drove out on to the isle, but the king's ship held the ground but they lay without awnings until daybreak. But in the morning when the flood came the bark floated and then she drifted up on the Scottish coast. The wind began to wax all at once. Their ground tackle then stood them in good stead who had it. Then the fifth anchor was cast on board the king's ship but the king got into a boat and rowed out to the isle and let a mass be sung to him. But the ship drove on into the Sound. Then the sheet anchor was taken and laid out, but she drove nevertheless. Some five ships drove up on the coast. Then they held on by their anchors on all the ships and on the king's ship too: she was then riding on seven anchors and the eighth which had fouled the cable and belonged to the bark. Most men so spoke that witchcraft had brought about this storm. Then they held on by their anchors, all those ships which had driven on shore: but three of them were altogether driven on shore, and they had the greatest hardship. As is here said:

The careful king
Met witchcrafts many
From the wizard lord
Of Scottish land:
The rolling surf
By black arts driven
Loosed many a ship,
Of canvas bright,
From moorings stout
Made fast on shore.

And again:

The magic gale blew o'er the host
On board the sea-steeds closely manned,
And that restless bane of earth,
The sea, drove warlike crews ashore,
On Scottish land, their warshields bearing
Eager to combat for their king. FP,p.355

Fordun and other Scottish historians have shorter accounts of this notable storm.

1263 Short refers to severe thunderstorms on December 1, and 13, but no earlier reference has been traced. A,II,p.183

1264 **Prevalence of north winds** in summer in southern England.
Chronicle of Melrose records the attempted invasion of England by Queen Eleanor in this year. It states: When they reached the sea coasts of France, Normandy and Flanders, they were forced to

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tarry there so long, that almost all of them were at last obliged by their wants to sell their horses . . . . . for God directed that a very strong North wind should set in, and blow violently night and day, without intermission, for two months and more, so that they could not by any means cross over into England. DT,p.215

1264 **Stormy weather** off Scapa Flow on March 8.
Thordsson: They sailed out the first Saturday in Lent and got hard and cross weather. FP,p.369

1264 **Gale** on May 13.
London Annals: On the 13th day of May at the end of the day, a great wind blowing in the city of London, houses of stone and wood were set on fire. . . . DK,p.63

1264 Thunderstorm. See in 1265.

1264 A severe storm on September 6 is mentioned by Short. No earlier account has been traced. A,II,p.183

c. 1265 **Hailstorm** in Scotland on January 6.
Boece: On the Epiphany day next after rais sa gret windis, with hail of uncouth magnitude, that many tounis wer cassin doun thairwith (Bellenden's Translation, Vol. II p. 358.)
Boece puts this in the 20th of Alexander III which Sir H. Nicolas' chronology makes about 1265.

1265 **Thunderstorm** at Abingdon on May 17.
Worcester Annals: On the 16th of the calends of June there was a great and horrible thunder so that one of the towers at Abingdon on the north side was set on fire by the thunder and lightning and the greater part of the walls and cement was carried away and with difficulty extinguished. GB,p.363
Short dates this in 1264.

1265 **Thunderstorms** on August 4 at Evesham and elsewhere.
Everisden: On the same day, about the third hour, there fell such a storm of rain, accompanied by thunder and lightning, that the darkness was so great at the dinner hour, they could scarcely see what was set before them for the repast. BS,p.337
William de Rishanger referring to the death of Simon de Montfort states: In the hour of his death there was thunder and lightning and such darkness that many were amazed. GG,p.35
Very many writers allude to these various meteorological phenomena in connexion with the battle of Evesham and the death of de Montfort.
Bartholomew de Cotton: . . . . . the day became dark, the sun withdrew his clear rays, there was an earthquake at the place, thunder muttered and frequent lightning shone forth. AH,p.140
Robert of Gloucester:

And therewith Jesu Christ was very ill pleased
As he shewed by tokens both terrible and true,
For as it to Himself befel, when he died on the Cross,
There was a great darkness throughout all the world.
Also while the good men at Evesham were slain,
There arose, as in the north west, a dark storm
So black and so sudden that many were terrified;
And it overcast all the land, so that we might hardly see;
A more fearful than it was might not on earth be.
A few drops of rain exceeding large there fell.
This token happened in this land where these men they slew,
And for thirty miles from thence this beheld Robert
Who first this book made and was right sorely afraid.

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A number of these accounts from various early sources are collected by J. O. Halliwell in his introduction to *De Bellis Lewes et Evesham.* (Camden Soc., 1840).

1265 **Floods** at Waverley on November 28.
Annals of Waverley: In this year on the fourth of the calends of December, namely the Saturday of the first Sunday in the Advent of the Lord, the water of the river overflowed its usual channels and thrust itself into all the buildings of the abbey situated on lower ground. GB,p.368

1265 **Gale and thunderstorm** on December 24.
Winchester Annals: Also, a violent wind and thunder was heard on the vigil of the Lord's birth. GH,p.103

1266 **Solar haloes** on May 30 and 31.
Waverley Annals: At this time, on the third of the calends of June, about the sixth hour, there appeared a certain great white circle in the midst of the sky, and other circles like a rainbow divided the middle of the same great circle, and there was a semicircle near the sun in the northern parts, and the arc of the white circle disappeared at the ninth hour and the semicircle of the rainbow became a great and entire circle, the sun shining in the midst of it. Also the moon was seen at the same hour towards the west, its two horns turned towards the earth; on the morrow, too, that is on the day of St. Petronilla the virgin, there was seen once more the great colored circle, with the sun in the midst, at the sixth hour; but it did not last long. GB,p.370

1267 **Gale.**
William of Newburgh's Continuator: A great and most violent wind which threw down churches, houses and towers, and the bell towers of churches. GE,p.550
Possibly this refers to the wind of January 14, 1268.

1267 Brooks and Glasspoole note a summer drought in eastern England. No original reference has been found. R,p.158

1268 **Thunderstorm** on January 12.
Winchester Annals: On the day before the ides of January thunder was heard and there was lightning and hail at Winchester after the celebration of high mass. GH,p.106

1268 **Gale** on January 14.
Winchester Annals: Also on the nineteenth of the calends of February there was a violent wind, so that trees were thrown down, houses and churches were levelled, and also the bell tower of the church of St. Catherine. GH,p.106
The Worcester Annals place both these events in January 1267. Probably this is the same wind as that mentioned in January 1268 by Gervase of Canterbury.
Gervase of Canterbury: In the same year, barely a month before the Purification, there was a wind so violent that one like it had not been known in a century before, and it was said that, in places, churches and houses were overthrown, and on land and sea, numberless tempests were said to have occurred. CD,II,p.247

1268 **Thunder and rain** in April.
Oseney Annals: In the same year and the same month very terrible thunder was heard: and there followed inundations of rain and runnings of water, very terrible, and enduring for fifteen days. DZ,p.215

1268 **Stormy weather** on September 18: **wet and stormy winter.**
William of Newburgh's Continuator: In the same year on the fourteenth of the calends of October there arose a very great

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tempest of wind and rain, and a commotion of the air, by land and sea, through which much evil resulted in divers parts. For houses were felled, trees uprooted, seed shaken out of the ground and rotted, many cattle killed, and ships sunk and broken to pieces. There was this year a wet and stormy winter and one full of diseases. GE,p.555

1268 **Floods** in the Nith.
Lanercost Chronicle: In the same year there was destruction beyond the bounds of St. Robert by the waters of the Nith. DH,I,p.86
The exact date is not given.

1268–1269 **Wet and stormy winter.**
See a note as to this under September 18, 1268. See also in 1269–70.

1269 **Gale** on April 17.
Oseney Annals: In the same year on the fifteenth of the calends of May, there were snow, a very great wind, and an eclipse of the moon, an unusual thing with us. DZ,p.222
The lunar eclipse was actually on April 18.

1269 **Thunderstorm** on June 3 at Winchester.
Winchester Annals: On the same day thunder was heard at Winchester at breakfast time. GH,p.107

1269 According to Short there were auroræ in December but no earlier account has been traced. A,II,p.173

1269 Various phenomena are allocated to this year by sundry compilers for which no original warrant has been traced. Short says "the whole summer was rainy". A,II,p.192
Thomson mentions "severe thunderstorms with very large hail in Scotland" and quotes vaguely "Chronicle of Scotland", an event which Short seems to place in 1272 on the authority of Boece. FO,p.178

1269–1270 **Severe winter.**
William of Newburgh's Continuator: In this year there was a bitter and prolonged winter. GE,p.559
There are a number of early references to a severe winter about this time of which the brief one given seems to be the earliest. It is rubricated 1270.

The Oseney Annals, a slightly later compilation, gives a much fuller account under date 1268: In the same year a very hard frost lasted from the feast of St. Catherine until the Purification of the blessed Mary, and it happened in this frost of wonderful duration that, as soon as rain fell from the sky, so it froze, so that, by reason of the slipperiness of this frost no one could ride on the same, nor turn in any direction without great peril of his life or limbs, or damage to his head. And after the thawing of the aforesaid frost, so there followed inundations of rain, and a running off of water, which carried away corn, seed, roots, sheep and oxen, houses and men, bridges of wood and stone, and did other immeasurable damage. DZ,p.220
These dates are presumably November 25, 1268 to February 2, 1269. The Chester Annals have it under 1268 and the Melrose Chronicle as late as 1271.

Fabyan, a much later writer, gives the following account: In this liiii. yere beganne an harde froste aboute the fest of seynt Andrewe and enduryd tyll it was nere vnto Candelmasse, the whiche was so feruent that Thamys aboue y^{e} brydge atwene London & Westmynster was so harde frosyn y^{t} men & beestes passed over on fote from Lambhyth to Westmynster, and so vpwarde in dyuers places to Kyngstone; & marchaundyse was caryed from Sandwych and other hauyns of the see vnto London by lande, for that shyppes at that season myght nat entre into y^{e} ryuer of Thamys. BP,p.365

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The regnal year there given would make the severe winter as 1269–70. The brief weather diary contained in MS. Royal 7, F. viii, (British Museum) records a good deal of frosty weather in the winter 1269–70 so that this dating is probably correct. Nearly all the later compilers refer to this notable frost.

1270 **Heavy rains** on March 25.

Oseney Annals: On the feast of the Annunciation of the blessed Mary there was so much rain and pouring out of waters, that, before or after the deluge of Noah, such a terrible one had not been seen, and, it was said, not of such a duration, for it lasted for forty days and more. DZ,p.230

Matthew of Westminster refers to a very rainy season during Lent.

Fabyan mentions flooding of the Thames on February 6: And aboute the feast of seynt Vedast fyll suche plente of water, that Thamys flowyd and rose so hygh that the lyke therof was nat seen by men than lyuynge; wherof ensuyd moch harme aboute London: for the selers by the water syde were all drowned, and in theym great plente of marchaundyse perysshed and loste. BP,p.365

Possibly the two accounts refer to the same event although Fabyan's is two centuries later. All three dates can be reconciled if we suppose that the scribe of the Oseney Annals wrote Annunciation in error for Purification.

1270 **Thunderstorm** on June 14.

Worcester Annals: Also on the eighteenth of the calends of July there was heard thunder, with coruscating lightning, from morning till night without ceasing. GK,p.459

The Winchester Annals have a similar entry dated a month earlier. GH,p.108

1271 Severe winter. See in 1269–70.

1271 **Thunderstorm** at Winchester on February 21.

Winchester Annals: Thunder was heard at Winchester on the ninth of the calends of March in the morning. GK,p.460

1271 **Heavy rains** in April in Kent.

Gervase of Canterbury's Continuator: In the same year in the month of April, in Burgundy, France, England, and most of all in Kent, there were such rains and earthquakes that it was thought to be like a second Deluge, and houses were carried off by its inundations, and stone bridges were broken; crops and vines were laid waste and submerged, especially in overseas parts, and about Canterbury, and in the church of Canterbury, there was such swelling of waters that the crypt of the church and the cloisters of the monastery, and the other offices, were filled with water, such that never in past times had the like been seen. CD,II,p.272

See in September 1271.

1271 Thunderstorm. See in 1272.

1271 **Gale** on July 4.

Worcester Annals: Also on the fourth of the nones of July there was a violent wind and rain so that trees were borne down and the crops rooted up. GK,p.460

1271 **Thunderstorm** on August 18 at Wantage (?).

William of Newburgh's Continuator: Indeed on the day of St. Agapitus, martyr, there was horrible thunder and lightning, and in that tempest a boy and a cow and two calves perished together by stroke of lightning in one place in Wanegia. GE,p.560

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1271 **Heavy rains** in Kent in mid-September.

The floods in the Canterbury area which Gervase's continuator records in the April of this year have already been noted above. A number of other contemporary writers mention heavy rains in the same district as occurring in mid-September. Possibly, of course, there were two distinct sets of events but, more likely, there has been confusion as to the month in which one and the same series of events occurred.

Everisden notes on September 11 : About the hour of vespers, on the third of the ides of September, such violent rain fell suddenly at Canterbury over the city and the adjacent country, that the greatest part of the city was suddenly inundated, and the storm of rain continued until the first hour of the ensuing day. BS,p.348

John de Oxenedes has a similar account. Thorne records the incident as on September 13. CY,p.239

Walter de Hemingburgh, writing about a century later, gives the events as on September 18 and his account is more circumstantial : In the year of the Lord 1271, on the 14th of the calends of October, there was at Canterbury such a flood of rain, with thunder, lightning and tempest such that two very old men had never heard or seen anything like it for prolonged thunder, for it was as if one horrible clap sounded for the whole of the aforesaid day and night, and such a flood of water followed that trees and hedges were overthrown, whereby to proceed was not possible either to men or horses, and many were imperilled by the force of the waters flowing in the streets and in the houses of the citizens. A very great famine followed throughout the whole kingdom. FZ,I,p.340

William of Newburgh's Continuator has a note of sea floods on September 21, but mentions no particular district. He also records the famine. GE,p,560

1271 **Gale** in London.

Bartholomew de Cotton : In the same year a vehement wind dashed upon the church of St. Mary le Bow at London and threw down the bell tower violently to the ground and killed several in the immediate neighbourhood. AH,p.146

No exact date is given.

1272 **Thunderstorm** on January 26.

William of Newburgh's Continuator : Afterwards, on the day of SS. John and Paul in the night watches there was a great thunder and terrible lightnings. GE,p.562

1272 **Thunderstorm** at Norwich on June 29.

Everisden : At Norwich, on the feast of the apostles Peter and Paul, while the monks were at prime, the great tower of the church was suddenly struck by a thunderbolt on the north side with such violence that some of the stones were torn away, and carried with great force to a considerable distance : an occurrence which must have been considered deeply portentous by all sons of holy mother church. BS,p.349

Bartholomew de Cotton also records this. AH,p.146

William of Newburgh's Continuator : Also in the following feast of the apostles Peter and Paul for nearly the whole night there was a terrible storm of thunder and lightning. GE,p.562

John de Oxenedes has this in 1271. CY,p.240

1272 **Hot and dry summer : windy autumn.**

William of Newburgh's Continuator : In this year there was a very dry summer and a fine harvest about the feast of St. Peter ad Vincula : but there were very harmful storms of wind in the following autumn, cutting off the fruit and crops. GE,p.562

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Book of Pluscarden: In the year 1272 a great drought on land and unfruitfulness in the seas fell upon Scotland, England and France, and a murrain of men and beast and stormy weather, so that by reason of much wind houses fell in ruins and smothered in their beds many who were asleep: and in the height of this storm the lightning set divers places on fire, and especially the church of Arbroath and many others. This drought was followed by a sore famine and dearth. EE,p.77

According to the Winchester Annals, the autumn was very wet: Also a great inundation of rain, which lasted from the time of St. Giles' fair until after the feast of St. Cecilia almost continuously. GH,p.112

This is practically the whole of the period September to November.

Thomas Wykes notes the heat and drought of summer but seems to refer the wet weather in autumn to the Canterbury district. No doubt there is confusion here between 1271 and 1272. GL,p.248

1273 Thunder, etc. See in 1274.

1273 **Wet and windy March.**

Everisden: March was very windy, and more rainy that it had been in any man's memory. Especially on the last day of the month, the third of the calends of April, the rain continuing for nearly a night and a day, caused inundations which almost equalled those of the year 1258; while in some parts of England they appeared to have exceeded in violence those of the former year, for they rose five feet above the bridge at Cambridge. Likewise at Norwich, their ravages were such that neither its being sacked by the islanders, nor the recent proceedings of the royalists, caused so much disaster to the place. BS,p.351

Other annals mention this wet March.

The Dunstable Annals record of March in this year: In the same year in the month of March there was a very hard frost and it lasted a long time. BF,p.260

This is a curious contradiction to the other records and no other notice of this frosty weather has been found anywhere else. Easton does not cite any British records for this winter which does not seem to have been unduly rigorous on the continent.

1274 **Parhelic phenomena** on March 15.

Wykes: In the same year (which had barely opened) on the 18th of the calends of April about the sixth hour there appeared in the firmament in the southern quarter, as it were, two suns, and three semicircles about those suns, of which two had very clearly the appearance of the colours of the rainbow, the third being entirely white . . . GL,p.262

1274 **Thunder, aurora,** and other phenomena on December 5.

Matthew of Westminster: This year on the Vigil of St. Nicholas, there was an earthquake, lightning, thunder, fiery dragons and a comet. DQ,p.407

Most writers agree in dating this in 1274 but Rishanger has 1273. GG,p.80

1275 **Heavy rains** in June.

Worcester Annals: In the same year there were great inundations of waters and continuous rains in the month of June and worse in winter. GH,p.120

1275 **Marine Inundations** in September.

Gervase of Canterbury's Continuator: Also in the same year in the month of September, a great earthquake happened in many kingdoms, and chiefly in England, and floods of water also about maritime towns. CD,II,p.281

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Walter de Hemingburgh : In the year of the Lord 1275 on the ides of September, between prime and tierce, there was a general earthquake in London and the kingdom of England, both in camps and towns, habitations and fields. At the same time there fell a bloody rain in various parts of Wales. In the same year there was a general murrain of sheep in divers parts of England. FZ,II,p.4

Short puts this fall of coloured rain in December 1274, apparently confusing this earthquake with the one described by Matthew of Westminster in that month. A,I,p.154

1276 **Dry summer** from April to July.

Wykes : A marvellous drought throughout all England whence from Easter until the feast of St. Margaret hardly any rain fell upon the earth. GL,p.269

Lowe quotes this as from the Anglo-Saxon Chronicle ! H,p.25

1277 **Thunderstorm** on January 10 at Winchester.

Winchester Annals : On the fourth of the ides of January, the moon being two days old, there was heard the first thunder at Winchester, that is to say, at midnight, with floods of rain following although it was clear weather in the day. GH,p.123

1277 **Wet February and March, dry April.**

Winchester Annals : Also in the months of February and March floods of rain continued : in the month of April there was a great drought and great heat for the whole month, except on the seventh of the calends of May, in which night thunder was heard and there were coruscations of lightning, by which, in many places in the kingdom, houses were thrown down, men and animals placed in fear of death, and it was said that water mills by the rising of the waters were entirely borne away. GH,p.123

Lowe notes a " hot and dry summer " in this year on the authority of the Anglo-Saxon Chronicle ! Lowe also includes 1278 as a droughty year on the same authority. No known MS. of the Anglo-Saxon Chronicle extends beyond 1154 and the authority intended has not been traced. Symons follows him and includes 1276–8 in his list of droughts. H,p.25 N,p.27

1277 Phenomena (apparently auroræ) are described by Short in December but no earlier references have been found. A,II,p.173

1277 **Heavy rains** on October 10.

Everisden : There was violent and intolerable rain on the sixth of the ides of October, which continued falling for two days and a night. The rains were followed by such vast inundations that in some places, men, oxen and sheep, and other cattle in the field were overtaken and drowned during the storm in the night : they also levelled to the ground houses, walls and trees, with other buildings which resisted the current. This storm was most violent about St. Edmunds, Essex, and the county of Cambridge, while in other parts of England, it occasioned little or no damage. BS,p.357

1278 **Mild Winter.**

Dunstable Annals : In this winter there was no snow or frost in our parts. BF,p.280

Presumably the winter 1277–8 is intended.

1279 **Marine Inundations** in Cheshire.

Chester Annals : Also in the same year the sea overflowed on the third of the nones of February, being the day of St. Werburgh, and did much damage at Stanlaw and elsewhere. Also it broke down and carried away the bridge at Chester by its very unusual and excessive current. AV,p.156

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1279 **Thunderstorms** in May.
Dunstable Annals: In the same month there was a terrible thunder; trees in many places were destroyed and at other places borne down: men were carried away in the clouds, houses collapsed, even watery places became dry. BF,p.280

1280 **Solar haloes** in February.
Worcester Annals: In the month of February there appeared eight semicircles round the sun, joined back to back. GK,p.479
Rishanger puts this in 1281. GG,p.99

1280 **Heavy rain** on April 23 at Oxford.
Oseney Annals: In the year 1280 from the assumption of the flesh by the uncreated Word through the Virgin, upon the feast of St. Gregory, which fell in Easter week, there was such a violent inundation of water at Oxford, that the like had not been seen in this time of the year for thirty years past or more. DZ,p.284

1280 **Heavy rains** on August 2.
Bartholomew de Cotton: On the morrow of St. Peter ad Vincula and on the day and night following, there was such an inundation of rain, and such violent floods of water followed, that men and women, old and young, and herds in the fields, mills and bridges, houses and trees, were submerged, and hay and corn in most places was carried away. AH,p.160

1280 **Heavy snow** on October 9.
Chronicle of London: Also in this yere upon seynt Denys day fel a gret snow, of whiche cam grete floodes and huge. DL,p.29

1280 Severe winter. See in 1281–2.

1280 **Thunderstorm** on November 10.
Everisden: Violent thunder and lightning were heard in many parts of England on the eve of St. Martin, which struck down houses and trees, and filled the beholders with astonishment and alarm. BS,p.363

1281 Lowe mentions a drought in this year, quoting Short. Other compilers follow him. H.p.25
Symons says the Thames and Medway were very low and Brooks and Glasspoole cite this from Symons. No note of this low state of these rivers has been found in any early writer. Perhaps the source of the account is a misreading of Stow who says the Thames and Medway were crossed dryshod, meaning, of course, that they were frozen over, not that they were low in water. R,p.155 FJ,p.201

1281–1282 **Very severe winter** from Christmas to March.
This notable winter is mentioned in very many chronicles and annals. The rubrics vary between 1280 and 1282, but there seems little doubt that 1281–2 is the winter intended. Easton has many references from continental writers. The severe weather is mentioned in the Irish Annalists also.

William Rishanger: In this year from Christmas almost to the Purification there was such abundance of frost and snow that five arches of London Bridge collapsed by the force of the ice, which became so thick that from Lambeth to the king's palace at Westminster people crossed the Thames dryshod: fish died in the ponds, and birds in the trees and fields perished from excessive hunger. GG,p.96
The Worcester Annals have the event under rubric 1281: Then there fell a deep snow and the frost following lasted for a month. And afterwards there was a great inundation of waters which broke down dams and bridges. GK,p 480
The same source adds under date 1282: From the feast of the Lord's Nativity almost to the Purification icy cold and such

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abundance of snow happened, that the old and infirm men had never before seen the like in England. For five arches of London Bridge and many other bridges were broken down by the force of the ice . . . GK,p.483

The London Annals have a similar account. DK,p.89

The Dunstable Annals give other details: In this year there was a great snow and very severe frost. London Bridge was largely broken down and Rochester Bridge likewise. And similarly in other places in England by the strength of the frost. Near Biddenham bridge the ice broke beneath a certain woman, and left her upon a fragment of it, whence she was carried upon the waters firmly seated as far as Bedford bridge: nor could anyone go to her aid. At Bedford bridge the ice broke and the woman was seen no more. BF,p.287

Annals of Loch Ce: Very great snow from Christmas to the festival of Brighid in this year. BC,I,p.491

All the compilers quote this severe winter under dates varying from 1280 to 1282.

1282 **Floods** in the Nith.

Lanercost Chronicle: . . . .there were very great floods, such that no one there remembered the like. . . . DH,I,p.108

1282 **Parhelia** on March 15.

Worcester Annals: On the ides of March there was seen by the prior of the order of St. Augustine at Lodelaw, with the lord Briennus of Brompton and other knights and many others, at Kinlet, three suns, one in the east, another in the west and the third in the south. GK,p.483

1282 Lowe refers to a great gale and floods at Boston. Possibly the floods of 1288 are referred to here. No annalist appears to mention any such floods in 1282. G,p.14

1282 **Marine Floods** in north Wales about November 6.

Walter de Heminburgh mentions the difficulties of the English at the Menai Straits due to sea floods. FZ,II,p.11

1283 **Wet summer.**

Everisden: During the whole summer, and the greater part of the ensuing autumn, there were such violent rains, that nearly all the hopes of the sowers in the spring proved illusory at the season of harvest. BS,p.369

The Worcester Annals place this wet summer in 1284.

1283 **Thunderstorm** on December 26.

Everisden: At London, and in divers parts of England, such wonderful flashes of light and awful thunder were seen and heard on St. Stephen's day, that those who beheld and heard it were struck with exceeding terror and alarm. BS,p.369

Short in several places gives 1284 probably through some confusion of style. A,I,p.156

1284 **Thunderstorm** at Bury St. Edmunds on April 9.

Everisden: On Easter day which fell on the fifth of the ides of April, about the first hour of the day, there were at St. Edmunds such a sudden and unexpected flash of lightning, and such loud and continued claps of thunder, that those who heard them could scarcely hold their footing. And although the storm was so violent in that place, it did no harm in the country, or but very little. We have heard that the same storm occurred in parts beyond the seas, the same day and hour. BS,p.370

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Oseney Annals : On Easter day, which fell this year on the fifth of the ides of April, it being a leap year, at about sunrise in the morning, such a thickness of the air obscured the sky, that the morning, which should have grown light unto the day, was like the darkness seen in the night time, and suddenly a horrible storm began to burst forth ; first hail and rain, and then a heavy snow was loosed, which covered the whole ground ; third, such horrid lightning and concussions of thunder, that the souls of the beholders and the hearers likewise were brought to amazement. . . . DZ,p.295

1284 **Dry summer.**
Chronicle of Melsa : In the year of the Lord 1284 there was so much drought and heat that men died. DS,II,p.182
Perhaps 1285 may be the year intended.
The Worcester Annals note a wet summer in 1284. See in 1283.

1284 **Thunderstorm** at Bury St. Edmunds on October 7.
Everisden : A storm of thunder and lightning occurred at St. Edmunds on the morrow of St. Faith before the first hour, with such sudden flashes and loud claps, that all who saw and heard it, were struck with the greatest terror. BS,p.370

1284 **Aurora** seen on November 27 at Dunwich.
Everisden : At Dunwich on the fifth of the calends of December, from the third to the sixth hour of this day, the sea appeared to be on fire, with not a very bright but rather a yellow flame. BS,p.370
If this was actually an aurora it was visible in daylight. " Sea on fire " is a description sometimes applied by old authors to denote an aurora borealis.

1284 **Thunderstorm** on December 13 at Strata Florida.
Chester Annals : In this year about twelve days before Christmas there was a great and unlucky event at the abbey of Strata Florida in Wales. Fire and lightning struck the belfry, and unobserved flames burnt the whole of the same and all the bells ; the lead of the church which covered it up to the walls was swallowed up. . . . This happened in the night. AV,p.114

1285 **Mild winter.**
Oseney Annals : Also in this year a notable thing happened and because unprecedented and unheard of to the moderns, it will not be useless to insert an effective memorial for posterity, namely from the feast of St. Michael to the feast of the Annunciation of the Lord, neither snow nor ice were seen in parts of Oxford to persist for the space of half a day ; indeed for almost the whole of the aforesaid winter time continuously the kingdom of England was usually besprinkled with showers of rain. DZ,p.303
Dunstable Annals : In this same year was a very mild winter such that one aged man had never seen its like. BF,p.317
The great snows which the Annals of Clonmacnoise place in this winter almost certainly refer to the winter of 1281–2. BA,p.256

1285 **? Ball lightning.**
Lanercost Chronicle : And because a violent wind increased, a flaming globe crossed the neighboring river and two villas at half a league distance were reduced to ashes. DH,I,p.119
No precise date is given.

1285 Baker refers to a great thunderstorm in London, citing Roger de Hoveden. There is some error here as Roger died in 1201. J,p.54

1285 **Dry summer.**
William Rishanger : In this year there was such a drought and heat that men perished. GG,p.112

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Walsingham also mentions this. Fabyan, however, in alluding to it puts it into the 15th Edward I, i.e. in 1287. Short and the later compilers include it under various dates. BP,p.391

1285 **Thunderstorms** in Scotland in December.
Lanercost Chronicle : Also in the December next preceding, under the sign of Capricorn, terrible thunder was heard and lightning seen, which, in the judgment of the wise, foreboded the overthrow of the prince, to whom it was announced as a warning. DH,I,p.115

1286 **Gale** in Scotland on March 19.
Book of Pluscarden : For that same year the king, making to cross over to Queensferry in Lothian was prevented by an exceeding great wind until twilight on the night of the 19th of March. EE,p.80

1286 **Paraselenae** on May 8, and **aurorae.**
Everisden : There was an appearance of two moons on the eighth of the ides of May, and in Suffolk, armies appeared fighting in the air. BS,p.373
John de Oxenedes mentions the lunar phenomena as in 1285.

1286 ? **Thunderstorm** on May 1.
Worcester Annals : On the calends of May about midnight for three or four hours a certain sound was heard by many but no one could make out whether the sound was a voice or not. GK,p.492

1286 **Thunderstorm** on May 2.
Worcester Annals : On the sixth of the nones of May came a stormy wind with lightning and thunder and with hail as great as stones, which fell to the ground : and crops were levelled, houses penetrated, branches of trees broken off, leaves and flowers severed, and in many places divers monsters were seen. GK,p.492

1287 Hopton (p. 219) says " extreme sun's heat " in this year. Probably 1288 is the year intended.

1287 **Severe hailstorm** on the Welsh border.
Chronicles of London : Also in this yere, in the March of Walys fel the grettest hailstones that evere were seyn in that countre, whiche dede grete harme to beestes and to houses and to corn. DL,p.33
No earlier reference than this one of the fifteenth century has been found. The precise date is not given. Possibly it is the same storm as that chronicled by Rishanger in 1289 and by Capgrave in 1288.

1287 **Stormy weather and marine floods** on January 1.
Everisden : On the night of the Circumcision the wind was so violent, and the sea so stormy, at Yarmouth, Dunwich, Ipswich and other places in England, as well as on the coasts of other countries bordering on the sea, that many buildings were thrown down, especially in that part of England called the Fens : nearly the whole district was converted into a lake and unhappily great numbers of men were overtaken by the floods and drowned. BS,p.374
Bartholomew de Cotton dates the event on the preceding day, that is, about midnight on December 31, 1286. Probably both days were stormy. He states : In the year of the Lord 1286, on the vigil of the Circumcision of the Lord, about midnight, a violent wind was heard suddenly, and on account of its horrible blowing there was a great inundation of the waters of the sea, so that, by the floods, boats to the number of 180 at Kirkhale and one sailor perished : but a few, by the help of God's mercy, miraculously came in safety to the harbour. AH,p.167

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Oseney Annals : On the feast of the Lord's Circumcision, a most strong wind began to blow from the Eastern points (which is called Eurus) and . . . the greater part of the town of St. Botolph's was submerged and men and a numberless multitude of cattle perished. There was a similar inundation in Essex and in several other counties which bordered on the coasts in the flat shores of the eastern parts ; nor was such a dreadful sea flood seen in those parts for thirty years past or more. DZ,p.308

Dunstable Annals : In the same year in winter there was a great inundation of rain and the northerly sea from the Humber to Yarmouth overflowed its usual bounds, and in some parts to a breadth of three leagues, in others to four, everything being submerged. A great multitude of men, sheep and cattle were destroyed. BF,p.338

1287 ? **Aurora** at Bury St. Edmunds on January 14.

Everisden : On the morrow of the octave of the Epiphany, sudden flashes of light were seen, which much terrified the beholders. BS,p.375

John de Oxenedes also mentions this phenomenon and adds that it was before dawn and was followed by marine floods. CY,p.268

1287 Dry summer. See in 1285.

1287 **Marine floods** on December 17.

Many writers mention these notable floods.

John de Oxenedes : In the same year in the month of December, being 15 in the 19-year cycle, on the seventh of the calends of January, the moon being eight days old, the sea, as well by the violence of the winds as by their boisterousness and raging impetuosity, began to be disturbed by a dense cloud and, with huge rushes, broke in through the flat shores, disturbing its customary bounds, and occupying fields, villages and other places on its confines, and also inundating parts which no one remembered seeing before covered by the waters of the sea in a cycle of a thousand ages past. For about midnight, upon its approach, men and women who were going out in their bed clothes with babies sleeping in cradles, and all kinds of cattle and fresh water fish, were suffocated and drowned, houses with all their contents were removed from their deep foundations with irreparable damage, and carried away and cast into the sea. Surrounded by many waters, people were seeking to gain a place of refuge, and when they climbed trees, broken up by the cold, they were cut off by the waters, and sinking down, were drowned. Thus it happened in the village of Hickling that twenty novices of both sexes and various ages perished in the aforesaid floods. In the priory of canons in the same place these floods overflowed their high altar to the depth of a foot or more. . . . And not only in the aforementioned village but also in the villages close to the sea was hurt done to men by peril of the aforesaid floods which happened in the profound darkness of the night. The abbey also of St. Benedict of Hulme, for example, was entered by the river which stretched around its walls, of which it could be said with the Prophet, " Abissus vallavit me, et pelagus operuit caput meum," for all the offices in this abbey, that is, the buildings in lower situations, the aforesaid river filled up to such a degree that small boats were taken into the middle of them. . . . This very woeful plague not only happened in Norfolk but in many places throughout England. CY,p.270

Bartholomew de Cotton : In the year of grace 1287 on the Sunday before the feast of St. Thomas the Apostle in November about midnight thunder was heard and on the Wednesday following there

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was a great inundation of the waters of the sea. In this inundation, or great tempest, in the villages of Horsey, Waxtonesham, Marsham, Hickling and in other neighbouring villages 200 men were drowned. Also in the town of Yarmouth 100 men were drowned. And in Great Yarmouth the stone wall of the cemetery was thrown down by the sea floods for a length of 60 feet. And the wall of the priory was brought prone to the ground and the river was swollen so much that it transcended the great altar in the aforesaid church. AH,p.168

There is some slight confusion of dates here. John definitely says December 26. Bartholomew says the Sunday previous to the feast of St. Thomas the apostle in November. This apostle has no feast day in November but on December 21, and in 1287 the previous Wednesday was December 17. The little chronicle of St. Benedict of Hulme, one of the churches affected by these disastrous floods merely says "A great inundation of the sea happened on the 16th of the calends of January", that is, December 17. All three writers were recording at the time and all lived near the affected localities. On the whole, it is thought that December 17, was the actual date of the calamity.

1288 **Severe thunderstorm** at Bury St. Edmunds on February 3.

Everisden: On the third of the nones of February, about nightfall, flashes of light were suddenly and unexpectedly seen at St. Edmunds, there having been no signs prognosticating it: and at the same instant, there was a tremendous crash, I will not say of thunder, followed by an insufferable stench. The storm was accompanied by visible sparks of fire, which fearfully dazzled the eyes of the beholders. The tower of the church of Barnwell was set on fire by the violence of the thunderstorm, and further damage done to the convent there, and one third part of the town was prey to the flames. At last the lightning also struck the refectory at St. Edmunds but the fire was quickly extinguished by the monks. BS,p.376

The Worcester and Dunstable Annals put this in 1287. GK,p.495

1288 **Marine floods** in Kent on February 4.

Gervase of Canterbury's continuator: The day before the nones of February the sea rose to such an extent in Thanet and round about, and in the marsh of Romney and all the adjacent parts, that all the dykes were demolished and nearly all the ground was covered from the great dyke at Appledore to Winchelsea both towards the the east and the west. (He goes on to record the burning of Barnwell church). CD,II,p.293

Lowe and other compilers seem to have these floods in 1280. G,p.14

The floods in various parts of the country in the early days of this year are the subject of an account in the Oseney Annals and incidents of the floods of the previous December appear to be incorporated in this account, which was probably written about 40 years later. It is as follows:

Oseney Annals: In the month of January on one of the days between the Conversion of St. Paul and the Purification of the Blessed Virgin there fell out a marvellous prodigy. In fact, an inundation of the sea was so violently powerful, that for one day and night, contrary to its ordinary usage and the course of nature, it was seen to flow and reflow four times alternately; and also that the quays of the Londoners upon the adjacent banks of the river Thames, which usually withstood the force of the sea, were overflowed, and the houses of the citizens were covered at a much greater distance than any mortal at any time had seen; villages also and fields in several neighbouring parts were swallowed up, and countless men and innumerable cattle in like manner were drowned. DZ,p.311

Also the same annals record: Indeed, beyond anything ever heard of were the inundations of the sea which we have recounted above in various provinces of the kingdom. . . . Certainly the monastery

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of monks at Spalding was damaged by the impetuous deep waters which flowed and covered them immoderately : also the abode of the Friars Preachers at Yarmouth, which is next the sea, was covered unexpectedly by the flowing waters, nor was the town of Yarmouth in the adjoining neighbourhood spared, for truly several of the buildings of the same town were submerged and blotted out. Besides this, in divers places, there was immoderate desolation by fires with the accompanying inconvenience : also fire from lightning generated by the concussion of thunder was started in the belfry of the monastery of Barnwell near Cambridge and the greater part of the whole edifice was devoured by the fire : also an accidental fire vehemently burned the monastery of Pershore with the town and almost reduced them to ashes. . . . DZ,p.313

1288 **Hot and dry summer.**
Annals of Dunstable : In the same year was an extremely dry and hot summer such as had not occurred during many years before, and a very great mortality of men followed. BF,p.341
Worcester Annals : There was a great drought before the dog days and after. GK,p.495
The Oseney Annals have slightly more detail : In the same year in the beginning of July, that is to say, on the feast of SS. Processus and Martinian, there began an intolerable heat and an increasing great drought, which endured continually for five weeks, namely, to the feast of St. Oswald, so that in the interval it did not rain at all. DZ,p.315

Numerous chroniclers mention the cheapness of wheat in 1288 due to an abundant harvest and a number mention the dryness of the summer. One of the XVth century London chronicles allocates this drought to 1289 and this date has been used by some later compilers. Other compilers give both 1288 and 1289 as years of drought.

1288 Thunderstorms. See in 1289.

1288 **Storms** on October 15.
Worcester Annals : On the ides of October in the northern parts numberless fishermen perished in the sea : for by the force of the winds the ships collided together and were universally submerged. . . GK,p.496

1288–1289 **Severe Winter.**
Dunstable Annals : There was a very cold winter, and frost, and a great snow. BF,p.341

This is not mentioned by any other annalists. Easton does not record a severe winter about this time.

1289 Drought. See in 1288.

1289 **Thunderstorms** on July 19.
William Rishanger : In this year in the night of St. Margaret, there descended a tempest of rain, thunder and lightning, such as had scarcely been heard of in past times : shaking the crops and drowning them so that in London a bushel of wheat, which before had been sold at three pence, now gradually increased to two shillings. And so for nearly 40 years, until the death of King Edward (the second since the Conquest) called " of Carnarvon," there existed a dearness of crops and especially wheat. . . . GG,p.119
Fabyan : This yere, vpon saynt Margaretes euyn, on the .xix. daye of Iulii, fyll wonderfull great hayle, that the lyke therof was nat of men than lyuynge seen : and after that ensued contynuell rayne, whiche distemperyd the grounde in suche wyse that, the yere folowynge, whete was solde for .xviii. d. a busshell. . . . BP,p.392

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Capgrave puts this in 1288 but his account is much later than that of Rishanger. Short mentions this event under a variety of dates such as July, 6, 9 or 20.

1289–1290 **Mild winter** : thunder in December.
Oseney Annals : Indeed from the feast of St. Michael to the feast of the Purification of the Blessed Mary, there was nothing but moderate frost : but snow was not once seen to cover the earth. Truly so great abundance of rain distilled almost day and night that its heaviness by day darkened the earth and the air, and the strength of the sun's rays illuminated the earth with only moderate power : . . . And in the same year, one night between the feast of St. Andrew the apostle and Christmas, there was heard a very terrible thunder and vehement lightning was seen to leap through the air, which in this time of the year does not often happen. DZ,p.322

1290 **Floods** at Norwich, on January 11.
Bartholomew de Cotton : In the same year on the Wednesday after the feast of the Epiphany, the river of fresh water did much damage in the city of Norwich : it exceeded the bridge of St. Martin and flowed up to the doors of the hospital of St. Giles, all the houses in those places of the said town being overturned and thrown into the current of the waters. AH,p.172

1290 **Mild spring.**
Oseney Annals : After the Purification, the whole of the following spring time also had gentler winds and most delightful serenity of the sun, with the cessation of the profuse showers, whence in the month of March there was hardly a drop of rain upon the earth. DZ,p.322

1290 **Thunderstorm** on June 18.
Worcester Annals : On the 14th of the calends of July there happened at the same time thunder and a violent wind. GK,p.502

1290 **Wet summer and autumn.**
John de Oxenedes : In this year there were frequently floods of rain in summer and autumn, whence the hay gathered on the meadows mostly perished. Also a languid and dear autumn . . . which lasted until the feast of All Saints. CY,p.273

1291 **Thunderstorm** on February 8, in London.
Everisden : On the sixth of the ides of February, at London, about the first hour, on a sudden and when it was least expected, the Lord thundered from heaven with a loud and sharp report, filling the hearts of all who heard it with awful terror. BS,p.381

1291 **Dry summer.**
Worcester Annals : There was a great drought in summer. GK,p.505

1291 **Thunderstorm** on August 11.
Bartholomew de Cotton : And immediately after, namely on the Saturday before the feast of the Assumption of the Blessed Mary, at the fair of St. Botolph's there were heard lightnings and thunder. And a demon in the same tempest threw down with his talons the pillars of a certain gallery in the same town, and several mills outside the town were overturned and in the same a number of women were killed, and in a neighbouring place in a field, three men were slain. AH,p.340

1291 **Dry summer, wet autumn, cold winter.**
Dunstable Annals : In the same year there was a great drought in the summer, a rainy autumn and in winter a strong frost and a great shortage of hay and forage. . . . BF,p.370

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1291 **Wet autumn : thunderstorm** on June 10 at Chesterford.
Lanercost Chronicle : At the feast of St. Michael there were such rains and inundations generally throughout England that they caused a hindrance not only to farmers but also to travellers on account of the muddiness and flooding of the roads. There was also in many places wonderful lightning and thunder of which I shall here commemorate one case, noted by not a few, and recounted to me by one who was present and saw it. There is a country town near Chesterford called Staveley containing as usual a parish church in which, while the ecclesiastics were performing divine service, it being the first Sunday after the feast of the Angels, suddenly about the first hour of the day the air became thick and dark and in one stroke of lightning all this damage happened immediately. For the lightning, entering the east part of the choir by a particular window towards the north, fouled everything it touched along the north wall with a black smoke, tore out stones, wrenched away the projecting part of the roof, killed one priest and injured another so that afterward he lived an invalid for not above two years. After running along the chancel it turned south and entirely blackened the right side of the statue of the glorious Virgin above the altar, and a certain religious prostrated at the right side of the altar, his mass being completed, was so suddenly slain that the right hand parts of his body, being next the wall were changed from head to foot, together with his clothing, into the semblance of pitch, his remaining parts being untouched. Thence crossing to the west to the belfry which, with its roof, was entirely of stone, it shattered the cross beams with a great crash and it broke away the stone joint with its large iron shaft with the greatest ease. DH,I,p.**141**

1291 **Dull, calm weather** at Christmas.
Everisden : From Christmas Eve until St. Sylvester's day, both exclusively, neither sun, moon nor stars appeared, and there was neither snow, hail, frost, rain nor wind but (may it be a happy omen) all the elements sunk together in a profound state of repose. BS,p.**397**
This is rubricated **1292** but the events appear to belong to the end of the historical year **1291**.

1292 **Cold weather** in February.
John de Oxenedes : In the month of February the winter was very hard. CY,p.**284**

1292 **Strong winds** and conflagration at Carlisle, on May 25.
Lanercost Chronicle : Now the wind increased to such a tempest that all living things were distressed, both pedestrians and travellers on horseback being either thrown to the ground or easily propelled backwards : and the sea became much swollen up with violence so that it passed over all its ancient boundaries beyond anything remembered by all the old men of the country, the animals pastured upon its shores being overwhelmed and the seed choked in the fields. DH,I,p.**145**
Walter de Hemingburgh referring to the same occasion at Carlisle says : . . . and in the night arose a fire and it spread on account of the great wind so that no one could resist it. FZ,II,p.**40**

1292 **Thunderstorm** on October 25.
Worcester Annals : On the 8th of the calends of November about midnight, there was lightning and thunder to the astonishment of many : floods and violent winds followed. GK,p.**510**

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1292 **Gale and thunderstorm** on December 27 at Tewkesbury.
Worcester Annals: On the day of St. John the Apostle at Tewkesbury there came a stormy wind with violent thunder and lightning, from which issued burning fire, but not luminous, and it burnt the top of the belfry. GK,p.511

1292 **Marine floods** on December 28.
John de Oxenedes: On the day of the Holy Innocents the sea overflowed its bounds and inundated all maritime parts. CY,p.287

1292 **Gale.**
Book of Pluscarden: In these days also a strong wind did much damage to Scotland and England, bursting open, overthrowing, and unroofing houses, tearing up and withering the grass, uprooting and tearing up trees of the forest, and doing a great deal of damage besides. EE,p.105
No precise date is given for this event.

1293 Floods. See in 1294.

1293 **Storm** on April 15.
Worcester Annals: On the 17th of the calends of May . . .at this time a violent northerly wind with snow shook buildings, and overthrew trees, and the wintry bitterness of the air spread over the face of the earth. Terrible lightnings and shakings of thunder followed it and floods of rain continued throughout the month of May. GK,p.512
Walter de Hemingburgh alludes to this storm as interfering with a naval engagement in the English Channel: . . . and on the same day there happened a great disturbance of the elements, that is, snow and hail, and a most strong wind. FZ,II,p.42

1293 **Prolonged thunderstorm** in the north on July 19.
The Lanercost Chronicle records a remarkable appearance in the sky about dawn on July 18, which might be a very brilliant sunrise or even an aurora borealis. It then records: And on the Sunday following in the evening, and continuing for the space of a whole night, there began continual thunder and very great lightning through all the western part of the diocese of York, and finally there succeeded a thunderbolt. . . . DH,I,p.154
A number of compilers include this as a year of drought and Lowe definitely gives a hot summer to 1293. There appears to be no original record for these statements. Possibly they arise from the fact that several writers refer to 1293 as a dear year. 1294 had a still more severe famine (q.v.). G,p.14

1294 **Famine and wet autumn.**
Everisden: A severe famine and scarcity prevailed throughout England. A quarter of wheat, which could scarcely be procured at all, and that not without difficulty, was sold in some places for twenty-four shillings; and besides, the months of August and the September following were so wet from continual rains, that little or no new corn could be obtained as late as the feast of St. Michael. BS,p.405
Other writers allude to these conditions in similar terms. DQ,p.424
Many later compilers give a drought and a hot summer to this year, but there appears to be no warrant for the statements in any native writer. The accounts appear to originate in Short. A,II,p.201

1294 **Gale** on January 19.
Bartholomew de Cotton: In the same year on the 14th of the calends of February such a wind arose, that, for a long time, none had heard the like, whereby it was said by many that there was an earthquake: and this wind lasted for the whole of the preceding night and day. AH,p.256

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1294 **Wind and snow** on April 11.

The Lanercost chronicle relates a prodigy at Haddington on April 11, which includes tempestuous wind and a fall of snow. DH,I,p.155

1294 **Heavy snow** on May 14.

Chronicle of London · In this yere fel the grettest snowe that evere was seyn before this tyme : wherfore a vercyfyer made in metre thise vers :

C'stino tiburci s'c'or Valariani
Nix cadit innanis vent' vehemens Borial'
Emulsit silvas ussit quas rep'it herbas
Edes dampnose detexit et impetuose
Quas clam p'stravit sic plurima dampna patravit. DL,p.35

Fabyan : . . . vpon the daye of seynt Tyburce & Valerian, the .xiiii. daye of Maii, fyll a wonderfull snowe, & therwith an excedynge wynde ; by vyolence wherof great herme was done in sundry places of Englande, in remembraunce wherof a metrician made these verses folowynge.

Crastino Tiburci sanctorum Valeriani
Nix cadit immanis, ventus vehemens borealis
Euulsit siluas, vulsit quas reperit herbas,
Edes dampnose detexit & impituose,
Quas clam prostrauit : sic plurima dampna parauit.

The whiche verses may thus be englysshed as hereafter foloweth :

The morowe folowynge Tiburce and Valerian,
The blessyd seyntes, of snowe fyll such plentie,
That at that daye was no lyuynge man,
That myght remembre of so great quantyte.
The northyn wynde blewe with suche fyerste,
That houses, tryes, with herbys, it ouercast
And many other harmes by lande, and eke by see,
Of that wynde came, the whyle that it dyd laste. BP,p.394

Holinshed puts this in 1293 and Short is apparently following him. J,p.57
A,I,p.158

1294 **Violent thunderstorm** on July 20.

Clyn : On the feast of the blessed Margaret, virgin, there were coruscations of lightning destroying the corn whence ensued a great dearth and many died of hunger. BB,p.10

Possibly the same storms as already noted on July 19, 1293.

1294 **Floods** in the Teviot.

Lanercost Chronicle : Upon the feast of St. Peter ad Vincula there happened a sudden but immense flood in the Scottish river called Teviot, a present prognostic of the future, as we considered it in our eyes. For suddenly, without great rain, the waters of the Teviot swelled up and went forth, bridges and high rocks were covered, mills under the castle of Roxburgh and others, as well as whatever thwarted it, being carried away. The bridge at Berwick also was broken and the tower thrown down, all the stone piers were overturned and several people crossing upon it were thrown into the water. DH,I,p.157

Scalacronica : About this time the bridge of Berwick across the Tweed fell in a great flood because the arches were too low, which bridge had lasted only nine years since it was erected. CJ,p.9

1294 **Late autumn.**

Annals of Duntsable : Also, the autumn, by reason of the intemperateness of the air, was late. . . . BF,p.391

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1294 There are several references in the chronicles to the adverse weather conditions which Edward I experienced in the Channel at various times in this year.

1294 **Floods** at Bermondsey and Rotherhithe on October 18.
Bermondsey Annals : In this year the torrents of the waters of the Thames overpassed their usual limits on the 18th day of October and then there happened a great breach at Rotherhithe and the plains at Bermondsey and the neighbourhood of Tothill were covered. Similarly it reached the cottages of the merchants at the fair of Westminster and forced them to strengthen the dwellings with taller stakes. AL,p.468
The Norman-French *Croniques de London* dates this in 1293. DM,p.24

1294 **Wet autumn and winter.**
Worcester Annals : From the feast of St. John Baptist to the feast of Blessed Mary in March, the frequent rain did not allow reaping in autumn or sowing in winter, as was necessary. GK,p.519
According to this account the wet weather extended from June 1294 to March 1295.

1295 **Rain** on April 1 and 2.
Lanercost Chronicle relates a prodigy happening on this date which is very difficult to rationalise. It was followed by blighting winds and violent rain on that night and the next day. DH,I,p.170

1296 **Floods** in the Tweed on March 28.
Walter Hemingburgh : On Wednesday in that same Easter week, . . . our king with his army entered into the territory of the enemy by crossing the waters of the Tweed under the monastery of nuns at Coldstream, and the waters were marvellously swollen. . . . FZ,II,p.97
Lanercost Chronicle also refers to these floods. DH,I,p.180

1297 **Hailstorms** in Scotland in November.
Walter Hemingburgh : A very great storm of hail, snow and strong frost came to pass after the same octave of the blessed Martin so that many of the Scots perished from cold and hunger. FZ,II,p.143

1298 Clarke has an account of the following prodigy : In the year 1298 there was a great battel fought between the English & Scots wherein many of the Scots were slain : the sun the same day appeared as red as blood so long as the battle continued. AY,I,p.481
The allusion is to the Battle of Falkirk on July 22, 1298. The only reference traced in respect of the phenomenon cited by Clarke is in Pembridge.
Pembridge : During this battle the sun appeared that day as red as blood in Ireland. . . . Also the morrow after the feast of the Seven Sleepers the sun's beams were changed into a blood colour all the morning to the great admiration of everyone. (Gough's Edition of *Britannia*, Vol. III, p. 672).
According to these annals the phenomenon was repeated on July 27. There was no solar eclipse about this date.

1299 **Gale** on January 20.
The Worcester Annals have the following stanza :

Ventus ut insanus perflavit meridianus,
Quercus prostravit, ædes magnus violavit,
Radices flamen confregerat ut leve stramen,
Sunt exstirpata vento pomeria lata,
Ferro firmata sunt campanaria strata. GK,p.543

Matthew of Westminster gives an account : This year a violent and ruinous storm of wind threw down trees and houses and many belfries in the kingdom of England in different places. DQ,p.430

1299 Short refers to a hurricane in December of this year. Possibly it is the one mentioned above. Walford also refers to floods and inundations on the east coast and in the Thames Estuary but no original record has been found. K,p.25

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§ 10—FOURTEENTH CENTURY.

1300 Symons states that, according to the Duchy of Cornwall records, no hay was made at Mere on account of the dry summer. N,p.28
Baker, and Brooks and Glasspoole reproduce this statement but the original record referred to by Symons has not been traced.

1301 **Cold winter** in Scotland.
Trivet: While he wintered in Scotland many of his great horses were lost by reason of the shortage of forage due to the cold winter time. FR,p.395

1305 **Drought.**
Matthew of Westminster: In this year there was such burning heat and such a drought throughout the summer that the hay failed in most parts of the country and the beasts of the field died for want and a double heat (both while the sun was in Libra as well as while he was in Leo) oppressed mankind. DQ,p.452

1305–1306 **Severe winter.**
Matthew of Westminster: And there followed suddenly an extremely cold winter, oppressing mortals, and the frost, snow and ice endured from the 18th of the calends of January to the 8th of the calends of February, and the fish died in the ponds, the birds in the woods, and the herds in the fields. And many of the birds of the air were so enfeebled that they were caught without nets or snares by the hands of men, like domestic birds. This frost was broken up by a rainy south-west wind blowing for three days. And when men thought that the winter was over, the air again gathered in clouds and the east wind blew assiduously, the frost returned and lasted from the ides of February to the ides of April. DQ,p.453

1307 **Gale.** (?).
Walsingham: In the same year a violent and destructive wind threw down trees and many belfries at various places in the kingdom of England. FY,I,p.113
His editor considers that this event should be placed in 1299 (q.v.).

1307 **Marine floods** at the beginning of February.
Melsa Chronicle: In the year of the death of this king, about the Purification of the Blessed Mary, there were very great floods and inroads of the sea on all parts of the coast: and many men and much cattle perished in the floods. DS,II,p.279

1307 **Lightning damage** at Roscommon on December 26.
Annals of Clonmacnoise: A Thunder bolt came from heaven and lighted upon the abbye of the ffryers of Roscomon & broke down the said abby uppon St. Steephens night in Christmas holy dayes. BA,pp.262–3
The rubric is 1308 but as the record says that Edward I died in the same year and also that Easter fell in March, there can be no doubt that 1307 is the year indicated. All the Irish annals appear to have the event in 1308. BW,p.106

1308 **Unseasonable year** in Ireland.
Annals of Loch Ce: Easter in the month of March in hoc anno: and there was great destruction of people and cattle in it, and also great inclemency of weather in it. BC,I,p.345
Easter fell in April in 1308 but in March in 1307 so that the latter year may be intended.

1308 Destructive lightning. See in 1307.

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1309–1310 **Severe winter.**

Annals of London: In the same year at the feast of the Lord's Nativity, a great frost and ice was massed together in the Thames and elsewhere, so that poor people were oppressed by the severe frost, and bread wrapped in straw or other covering was frozen and could not be eaten unless it was warmed: and such masses of encrusted ice were on the Thames that men took their way thereon from Queenhithe in Southwark, and from Westminster, into London: and it lasted so long that the people indulged in dancing in the midst of it near a certain fire made on the same, and hunted a hare with dogs in the midst of the Thames: London Bridge was in great peril and permanently damaged. And the bridge at Rochester and the other bridges standing in the current of the waters were wholly broken down. DK,p.158

Several other historians mention this frost. *Croniques de London* puts it in the 3rd Edward II, so that the actual date would appear to be 1309–10.

Matthew of Westminster has it under 1309: Certainly, in the feast of the Lord's Birth and for some time afterwards, the north wind, a breeze drawn out of the higher regions, so tightly bound together the earth and the running waters and especially the river Thames, that horses and men and laden vehicles were seen crossing over it. ER,p.146

Holinshed in his account states: A sudden thaw after a great frost caused the waters so fast to rise that Salisbury Cathedral was flooded and the king was enforced to leave the church as the executor did his mass, lest they should all have been drowned, and this rage endured for the space of two days, whereupon no service could be said in the said minster. J,p.61

Watson has this in his list under 1310–11. (*London, Quart. J. R. met. Soc., 27, 1901, p. 141.*)

1311 **Gale** on September 14.

Walsingham: On the day before the nones of the same month a very violent wind arose which threw down innumerable trees with their fruit and the bell towers of Modeford and Gevelton were likewise thrown to the ground. FY,I,p.126

1313 **An ordinary year.**

Walsingham: The past year . . . was neither cloudy nor serene, neither disturbed nor calm. . . . FY,I,p.137

1314 **Wet year** with famine.

Matthew of Westminster: Now in the kingdom of England there were such outpourings of rain and inundations of water with unusual disturbance of the air, that crops and victuals were consumed and in one year not seven serene days together could be found. From which followed such dearness of victuals and cruel famine that great multitudes of men died of hunger.

Numerous contemporary writers describe at length the severe famines of the period 1314–6. The wet weather mentioned by Matthew in 1314 is noted by other writers in some one or more of the years 1314, 1315 and 1316. Specially full accounts are in John de Trokelowe and in Walsingham.

The *Croniques de London* says of 1314: In this year were so great rains that corn and all other things were lost in August and the rain lasted from Pentecost to Easter. DM,p.38

Perhaps this means from the Whitsun of 1314 to the Easter of 1315. The Melsa Chronicle has a similar note. DS,II,p.332

Capgrave, about a century later, writes of 1314: In this yere were swech reynes in hervest that baxteres dryed here corn in ovenes or thei myte grynde it; and the bred that was mad thereof had

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no vertu ; for as sone as men had ete thei hungered ageyn ; wherof fel mech mischef. Summe deied for hungir ; thei that were put oute of houshold went into the cuntre, and robbid pore men. So mech hungir grew in the lond, that foure peniworth of bred was not sufficient to feed a man o day. AQ,p.181

1315 **Wet year** and famine.

Annales Paulini : In the same year was a great inundation of rain for nearly the whole year and very great dearth, and lack of grain and all other victuals. EB,p.278

Vita Edwardi Secundi : Now in this past year there was such abundance of rain that men hardly gathered any crops for sale or stored it safely in the barn. For the inundation of rain consumed nearly all the seed, so that now was seen the fulfilment of the prophecy of Isaiah, and in several places hay was so hidden under water that it could neither be cut nor gathered. Sheep also perished in flocks and the animals died of a sudden murrain. BK,p.214

Robert de Graystanes : This blow was followed by another ; on the translation of St. Swithin next following, that is to say, on the ides of July, there was such an inundation of rain that the rivers wonderfully overflowed their usual confines, submerging the adjacent crops and pastures, carrying away mills and ponds, and entering and bearing down neighbouring houses in the night, and drowning men, women, and children. None who then saw it remembered such an inundation, nor such a dearth as followed upon it, nor such a murrain of cattle. EO,p.97

The editor of Graystanes suggests that this account might possibly be the origin of the St. Swithin legend.

Apparently the unseasonable weather was also felt in Ireland.

Annals of Loch Ce : Slayings of people and intolerable destructive bad weather also happened in it. BC,I,p.579

1316 Gale. See in **1317**.

1316 **Wet year.**

Gesta Edwardi : Also in this same year there was such an inundation of rain in the summer and autumn. . . . BJ,p.50

Other writers have similar notices.

There is no doubt some confusion of dating and consequent overlapping in the very many accounts which have survived in various historians as to the period of famine and bad harvests which occurred in the years **1314** to **1316** or **1317**. There was at least one very wet year, and probably two, in the period. This famine was the last really serious one to be experienced in this country.

1317 Lowe says this was a very good summer and an early and plentiful harvest. No earlier notice has been found. H,p.25

1317 **Gale** in Ireland on November 19.

Dowling : A great and powerful tempest of wind arose, which prostrated the belfry of the church of the Trinity, Dublin, and very many houses, and did other damage. BE,p.20

Grace and Case both note this as in 1316.

1318 **Heavy snows** in Ireland.

Annals of Connaught : Snow, the like of which was not observed for a long time, fell in *hoc anno*. BC,I,p.597

Other Irish annals also refer to these snows.

1320 **Aurora** (?) in March.

Robert de Graystanes notes a prodigy soon after the death of Robert Layker on March 12, 1320, which might be an auroral display. EO,p.99

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1321 **Famine** in Scotland.

Fordun: There was a very grave winter in the year of the Lord 1321, which afflicted men and killed nearly all the animals. BT,p.**349**

This does not appear to have been a particularly cold winter. Probably by the phrase *hyems gravissima* Fordun means that there was a very difficult time on account of the famine. This scarcity extended to England also.

1321 Some compilers, including Symons, allocate a very hot dry summer to this year. They all appear to be following Short, but no earlier reference has been found. A,II,p.**201**

1322 **Solar phenomena** on October 31.

Chronicle of London: In this yere of oure lord a m'cccxxij, the laste day of Octobre, the sonne was turned into blod, and so endured fro the morwe of the day unto xj of the belle befor noon. DL,p.**47**

There was no solar eclipse on this date. Seyer quotes a somewhat similar note from an old MS. calender of events at Bristol where it is merely dated 1320 or 1321. Conceivably it might refer to the solar eclipse of June 26, 1321. No contemporary reference to the event has been traced. FE,II,p.**109**

1322 **Auroral display** on November 4.

Matthew of Westminster: . . . on the fourth day of November at the first hour of the night in the western parts beyond the city of London near the village of Uxbridge, there appeared in the air to many beholders a wonderful sign. For a certain pile of fire of the size and shape of a small boat, pallid, but of a livid colour, rising up from the south and crossing the firmament with a slow and grave motion, set its course towards the north. Out of the front of this pile another very fervent fire of a red colour and of greater quantity, similar in shape to the former, burst forth immediately with bright beams and great speed, flying through the air, which were seen quickly meeting against each other by many beholders. And by turns frequently approaching with collisions and engaging in fearful combat, the blows of which conflict and the sounds of the crashes were heard at a distance from the beholders. . . . ER,p.**210**

1323 **Violent storm** at Cowick on June 24.

Matthew of Westminster: . . . for about the feast of St. John Baptist there was a furious tempest and dark whirlwind at the manor of Cowick, not very far from the cell of Selby . . . at the ninth hour, the king with his courtiers being at meat at the table, suddenly a dark cloud obscured them, so that, in the courtyard, the servants, by reason of the great darkness, could hardly see those resting there. Then the wind rushed into that thick darkness with such violence that oaks of wonderful size and other trees were torn up by the roots, one, indeed, being twisted in two at the middle, and another cloven from the top downwards. . . . Thirdly, with a horrible turmoil, the waters flowing around were thrown violently from their channels. ER,p.**216**

1324 **Drought.**

Melsa Chronicle: In this year there was a great drought and shortage of water in the fountains and rivers of the earth: so much so that several villages of England, namely, at Royston, in the abbey of Croxden, in Wandsworth and elsewhere, they were burnt up for lack of water. DS,II,p.**349**

Very possibly this refers to 1325 in which year a number of writers mention a drought.

1325 **Gale** in Ireland on January 7.

Clyn: Also, in the same year, on Monday in the feast of the Epiphany, in the evening, there was a most violent wind and

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tempest, which threw down houses and buildings, stripped churches and monasteries, broke down and levelled many trees and belfries, and scattered stacks of corn and barns. BB,p.17

Another contemporary source, the Annals of Ross, date this on January 5. Case, a little later writer, has it in 1324 but probably this is merely a difference as to style.

1325–1326 **Drought.**

Croniques de London records as in the 19th Edward II: In this year there was a great dryness of rivers and fountains, so that there was great shortage of water in several countries. . . . In this time, for lack of sweet water, the sea flowed up so far that the water of Thames was salt. DM,p.50

Walsingham: In this year, in summer, and also in the year following, there was such a drought that it was said with truth of this land:

Anglorum terras jam fervida torruit aestas,
In Cancro solis dum volvitur aureus axis.

Because most of the rivers and fountains of water were dried up, and the waters in all places had almost disappeared. FY,I,p.177

1326 **Drought** in Ireland and England.

Clyn: For in this year there was an unprecedented drought in Ireland: so that in winter there was not much rain, and in spring, summer and autumn there was none, and very great dryness and great heat, so that the brooks and great rivers (which always gave plenty of water) were almost dry.

Annales Paulini: In the same year there was great drought throughout all England both in summer and in other times of the year, so that men led their animals for watering, in some parts of the country, for three or four leagues. Brooks and streams, wells and marshes, which previously had never dried up, everywhere became dry; the pond at Newport in the county of Essex, in circuit nearly a league, was dry, so that all the fish perished. In the same way, the water at Havering Mere, formerly bearing great ships, was shrunk to such an extent that it was hardly possible for it to take a little vessel. And the river Thames for nearly the whole year was salt. EB,p.312

In the compilers we find some or all of the years 1324 to 1326 listed as years of drought. Symons has all three in his list and other writers have followed him. No doubt there is some overlapping amongst the original records, but it would appear that there were two consecutive dry years, probably 1325 and 1326.
Boece notes about this time two years of famine in Scotland followed by a year of abundance. Possibly the lean years were the two dry ones. AM,III,p.218

1326 **Stormy weather** in western England in October.

Scalacronica: At Chepstow, the king dismissed his suite and embarked suddenly on the river Wye, intending to have fled with Hugh le Despencer to a foreign country . . . but wind and tide were so contrary for him that during fifteen whole days he could not venture out of the Severn for the storm. CJ,p.72

Geoffrey le Baker mentions this incident and states that Edward was trying to make Lundy Island. The king was at Chepstow from October 16 to 21. (*Chronicon*, edited by E. M. Thompson, Oxford, 1889, p. 23).

1326 **Severe thunderstorm** on November 16.

Annales Paulini: In the same year, on the 16th of the kalends of December, namely, on the feast of St. Edmund the archbishop, there commenced a great tempest in the middle of the night, and it lasted for a whole day, that is to say, horrible thunder, coruscating lightning, rain and hail, with a vehement wind, such as had not been heard of before. EB,p.318

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1327 **Paraselenae.**
Chronicle of London: In this yere were seyn in the firmament too mones, and in this yere were too popes. DL,p.51

The reference in the latter phrase is obscure. There was certainly only one pope in 1327 who reigned until 1334. Gregory, a much later writer, mentions the lunar phenomenon but omits any reference to the reigning pontiff. CH,p.77

1327 **Floods** in the Tyne.
Boece records:

> Off aduenture that same tyme hapnit syne,
> As tha come all wnto the water of Tyne,
> The flude it grew so greit of spait that tyde,
> Thair doucht na hors ouir that water to ryde,
> No ȝit na freik that saifflie ouir mycht found,
> Without that tyme baith hors and man wer dround.
> That flude was waxit so than with the rane,
> That force it wes thair till byde and remane. . . . AM,III,p.263

1328 **Violent thunderstorm** in Ireland.
Four Masters: Awful thunder and lightning occurred in the summer of this year, by which the vegetation and the fruit of Ireland were extensively destroyed and the corn blighted. BW,p.115
Several Irish writers record these storms. Annals of Connacht add: Great intolerable wind in the summer and scarcity of food and much drought. BC,I,p.609

?**1328** **Severe storm** in the North Sea damaging the English navy.
Boece gives a detailed account of the Scottish wars in the early years of Edward III. He mentions the following event without precise dates:

> This king Edward, of quhome befoir I spak,
> For weir that tyme gart greit prouisioun mak,
> To cum in Scotland; as commandit he,
> Ane greit naving was first put to the se,
> Threscoir of schippis contenit and ten,
> In quhome that tyme war mony nobill men,
> With mony captanis that war men of gude.
> The wynd wes fair, and tha went ouir the flude,
> . . . . . .
> That samin tyme so hapnit for to be
> So greit ane wynd and storme vpone the se
> That schippis all war drevin to the north land,
> And sum on craig, and vther sum on sand,
> War brokin all. AM,III,p.319

In 1329 the fleet suffered another disaster, due to storms, in the Firth of Forth. Boece also described this. AM,III,p.327

1329 **Wet autumn** in Ireland.
Four Masters: The crops remained unreaped until after Michaelmas throughout Ireland in consequence of wet weather. BW,p.117

1330 **Very stormy weather** in November and December in Ireland.
Clyn: Also in the same year on Sunday in the feast of the blessed Katherine, there was a vehement and horrible wind: and on Sunday in the vigil of the Lord's nativity, there was a similar wind which scattered the ricks of corn, tore asunder houses and did much damage. BB,p.21
Grace: The wife and daughter of Milo of Verdun were killed by a most impetuous wind which threw down their house. There was

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a great flood, too, especially in the river Boyne, in which all the bridges beyond Babe were thrown down and other damage done at Trim and Drogheda. CF,p.116

Case mentions all these events with slightly fuller detail. AT,p.372

1330 **Wet year** in Ireland.

Clyn: From May to February was humid, very rainy and boisterous, so that summer and autumn were seen to be almost changed into wintry tempests. BB,p.21

Other writers refer to this and the subsequent rise in prices.
There is a note by R. Nicholls in *Nature*, 120, 1927, p. 416, quoting the records of Croxden Abbey, that the latter half of this year was unusually wet.
Short says "heavy rains from June to September, harvest very late, began 29 September, finished 30 November." The source of these precise data is Holinshed, but no original writer has been found to mention these details. J,p.69

1331 **Light spring rains.**

Merle: It is to be noted that the rain which fell from the beginning of February till the middle of May did not penetrate much; and in the year of Christ 1331 it happened likewise. DV

1331 **Drought** in spring.

Annales Paulini: About this time there was such drought that for 15 weeks no rain at all fell upon the earth. . . . but suddenly a little before the day the tournament was to be held there fell so much rain that all the ground was thoroughly watered. EB,p.54

This tournament was at Stepney on June 17, 18 and 19.

1333 **Dry weather** in April.

Merle: It is to be noted that there was dryness about April this year as there was in the years of Christ 1333 and 1340. DV

1333 **Mild summer** in Ireland.

Grace: A very temperate summer, corn being sold for sixpence a peck. CF,p.128

Pembridge: It happened to be so dry a summer that at the feast of St. Peter ad Vincula there was bread made of new wheat and wheat was sold in Dublin for sixpence a peck. (Gough's Edition of *Britannia*, Vol. III, p.686.)

1334 **Sea floods** on November 22, notably in the Thames.

Murimuth: Also in this year, in the night of St. Clement, by a great inundation of the sea throughout all the kingdom of England and mostly in the Thames, the sea walls were broken down and many animals drowned: and fruitful land was converted into salt marshes, so that one could not hope to restore its usual fertility for a long time. DX,p.74

Fabyan, a fifteenth century writer, says that there fell "excedynge plente of rayne" in this year. Possibly this may refer to the marine floods. BP,p.443

1334 **Thunderstorm** on November 29.

Gesta Edwardi de Carnarvan: And on the vigil of St. Andrew the apostle about midnight there was seen vivid lightning and very terrible thunder was heard where we were. And on the same vigil, about the third hour of the day, there was a great and universal tempest of snow and westerly winds which endured the whole of that same day, such that no one could remember the like of it. BJ,p.120

The record mentions damage done at Whitby and elsewhere.

Melsa Chronicle: This night, on the vigil of St. Andrew the apostle, an unusual wind, dreadful beyond measure, accompanied with snow, threw down not only houses, but many churches, as

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well as killing many men, sheep and oxen. The sea also rose higher than usual and submerged villages with their inhabitants. And the winter was most bitter : whence many thousands of animals perished miserably of hunger. DS,III,p.373

1334 **Frosty weather** in November and December.
Gesta Edwardi : In the same year about the feast of St. Martin in winter, there began a frost, snow and hail which endured continually for the four following months. BJ,p.120

Easton does not consider this winter a particularly rigorous one.

1335 **Snows** in Ireland at the end of January.
Clyn : Also in the week before the Purification it snowed greatly for eight days, many animals being injured, ... mills, wheels and bridges, on the melting of the ice, were broken up and destroyed. BB,p.26

Annals of Clonmacnoise : There was such great snow in the Spring of this yeare that the most part of the small foule of Ireland died. BA,p.290

1335 **? Wet year.**
Gregory : And that yere was grete dethe of men and morayne of bestys and grete rayne. CH,p.79

No earlier reference than this one of the fifteenth century has been traced. Probably these are the same rains that Fabyan places in 1334 (q.v.) and they may have some connexion with the marine inundations which occurred in 1334. Numbers of later compilers include in their lists some reference to rain in 1335. Short allocates " floods, storms, tempests, meteor " to this year. Luckombe (p. 169) gives " rain so heavy that the corn was spoiled ".

1335 **Storm** at Inchkeith about July 6.
Book of Pluscarden : The sailors were driven to such straits by a storm that at the island of Inch Keith they unloaded all the spoils and relics and images which they had purloined. . . . . So after they had made amends . . a strong wind filled their sails and they reached a place called St. Abb's Head in one run and got back to their country safe and sound. EE,p.210

1337 The weather record maintained by the Rev. William Merle at Oxford and Driby, Lincolnshire, commences in this year.

1337 The severe frost noted by some compilers in this year probably has reference to the winter 1338–9 (q.v.). No early writer appears to notice a rigorous winter in 1337. M,p.6

1337 **Mild weather** in January.
Eulogium Historiarum : In this year in many places in England willows brought forth flowers in the month of January and there were likewise many roses. BN,p.202

Sir Richard Gregory notes that January of this year was warm and moderately dry and that there was no considerable cold in the previous winter. This account comes from Merle. DV,p.4

1337 **Thunderstorms.**

Merle records on May 17 in Oxford, heavy rain with thunder. On June 17, he records a two-hour thunderstorm with very heavy rain in north Lincolnshire. DV,p.4

1337 Baker refers to floods at Staundon, Herts, but no original account has been found. J.p.71

1338 **Floods** at Kilkenny on November 17.
Clyn : Also on Tuesday, the 15th of the kalends of December, there was a very great inundation of water, the like of which had not been seen for 40 years previously, in which bridges, mills and buildings were overthrown and carried away ; the waters did not

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reach or cover the foot of the great altar, or the steps of the altar, of the whole abbey of the Friars Minor at Kilkenny. BB,p.28

There is a note in the *Meteorological Magazine*, 56, 1921, p. 22, concerning these Kilkenny floods.

1338 The following note occurs in the *Meteorological Magazine*, 63, 1928, p. 19: " In 1338 inundation of the Thames did great damage and a respite of payment was granted ". The authority quoted is the Calendar of Close Rolls, 1337–9, p. 389. The actual statement in the Close Roll is: To the treasurer and barons of the exchequer—order, to permit the prior of Bermundseye to have respite until Michaelmas next for £100 which he ought to pay yearly at the exchequer for custody of his priory as the King has granted him that respite in consideration of the damage suffered by him suddenly and without his fault, after he had the said custody, as the King has been informed by those in whom he has confidence 8th March, 1338.

1338–1339 **Wet and cold winter.**

Murimuth: Also in this year from the beginning of October to the beginning of the month of December there fell such rains that the ground was rendered quite saturated, and in England, due to this, there was no sowing. And in the beginning of the month of December came a very hard frost so that the whole of the saturated ground was completely frozen and the whole earth was seen to be like ice. This frost lasted twelve weeks, whence the whole of the winter sowing was as if dead, so that in March, April and May, almost nothing appeared, especially in the fruitful valleys and other good grounds. However, all kinds of corn were to be had at a moderate price, not on account of the abundance of crops, but because of the shortage of money. DX,p.88

Walsingham, a later writer, refers to this frost which he appears to date in the winter 1337–8. His account seems somewhat confused, however, as after referring to the rigorous weather of December, January and February, he goes on to add that flowers were in bloom in the January, an event which the *Eulogium* gives to 1337. Merle's diary makes it clear that 1338–9 is the correct dating for this cold winter. He notes severe frost in December 1338 following a wet October and records other severe frosts in January and February of 1339.

This frost is recorded in many Irish writers also. Clyn says of 1338: This year was exceedingly stormy and harmful to men and animals because from the feast of All Saints to Easter there was snow and ice, and from the feast of Andrew until Vincent agriculture ceased on account of the snow and ice which continued abundantly until that time. BB,p.28

The frosty period was presumably November 30, 1338 till January 22, 1339.

Case gives more details: Also in parts of Ireland the frost was so severe that the river of Dublin, the Liffey, was frozen so that many people disported themselves upon the ice, indulging in games and races: then upon the ice a fire of wood and grass was kindled . . .: this frost lasted many days: also the snow in parts of Ireland accompanying this same frost was of wonderful depth. From the 2nd day of the month of December to the 10th day of the month of February this weather continued. AT,p.381

Nearly all the compilers include this frost with various dates for the commencement and ending. The favourite period is 12 weeks.

1339 **Severe floods** in the Tyne on August 12.

Lanercost Chronicle: In the same year on the third day before the assumption of the glorious Virgin, in the night, at Newcastle upon Tyne, there happened a marvellous inundation of waters whereby the wall of the town near to Walkenowe was broken down for a length of six perches, and 160 men and 7 priests, and more, were drowned. DH,II,p.318

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Other chronicles have a record of this event. The *Anonimalle Chronicle* gives the casualties as 140 men instead of 160. It is also in most of the compilers. Short includes it under the correct date and also as on March 22, apparently reading "annunciation" instead of "assumption" in fixing the date. In later lists both dates are found as a result of this confusion. AE,p.14

1340 **Mild weather** at the end of the year.
Sir Richard Gregory notes that there was not much cold after the autumnal equinox. This note derives from Merle.

1340 **Wind** on June 22 before the battle of Sluys.
Murimuth: And on Thursday before the feast of the nativity of Saint John Baptist he had a good wind and joyfully commenced to set sail. DX,p.105

Croniques de London indicates that the wind was easterly for a fortnight but turned to westerly on June 22, when Edward III embarked with his fleet in the Orwell. DM,p.76

1341 **Stormy weather** in the Channel.
Oseney Annals: Also in returning to Britain, King Edward was exceedingly incommoded by a marine tempest which it was said, was certainly brought about by the necromancy and wickedness of Philip, the aforesaid king of France. DZ,p.351

Bentley mentions this event in his list probably taking it from Higden.

1342 **Gale** on January 16.
Croniques de London: And in the same night there arose such a horrible tempest of wind, rain, lightning and thunder, that it threw to the ground and destroyed the very beautiful tower of the church of the Friars Minor at London. DM,p.87

1342 Sir Richard Gregory alludes to the springlike weather throughout the period September to December. This is quoted from Merle.

1342 **Winds** in the Channel on October 23.
Murimuth in describing Edward III's expedition from Portsmouth states: Whence, on the Wednesday next after the feast of St. Luke the Evangelist, having a prosperous wind, he commenced his voyage with his fleet of 400 ships. . . . DX,p.128

1342 **Paraselenae** at Dublin on October 11.
Case: On the 11th day of October, the moon being 11 days old, there were seen by many people in Dublin before daylight two moons in the sky: of which one was bright and moved to the west in the course of nature: the other, however, was in the east, rounded in the shape of a loaf, and held only a portion of splendor and light. AT,p.385

Grace notes this as on October 15. CF,p.134

1343 Baker says 1343 and 1344 were dry years but gives no original reference. J.p.73

1343 **Stormy weather** in the channel.
Murimuth records the bad weather experienced by Edward III's army in returning from France early in the year: Now the king, with a few of his trusted retainers, in returning by sea, suffered a severe and horrible tempest: whence all the ships of his fleet were scattered. . . . DX,p.135

1343 **Wet period** in Ireland.
Grace: Lord Ralph Ufford with his wife, the Countess of Ulster, came to the Justiciary: at his coming the sky began to be rainy, which did not cease until he departed this life. CF,p.134

Sir Ralph Ufford died on April 9, 1346 (q.v.). Pembridge says he became Justiciar on July 13 (Gough's edition of *Britannia*, Vol. III, p. 687).

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1343 There is a note in the Annual Register for 1778 of a thunderstorm at Ahade, Co. Donegal, in 1343, in which two persons were killed (Chronicle, p. 19).

No earlier reference has been found.

1344 Weather Diary.

The record of the Rev. William Merle ends on January 10.

1345 Wet autumn.

Murimuth: In this year so much rain fell in the autumn that little corn could be stored dry and ripe in the barns and in several very fruitful parts it perished. Whence a versifier made this stanza:

Si pluat in festo Processi et Martiniani,
Imber erit nimis et suffocatio grani.
Martini festum translati si pluviam det,
Quadraginta dies continuare solet.

Indeed this rain was so great in the time that it lasted that a good and healthy seed time in winter was very little expected. DX,p.173

Inwards in his "Weather Lore" mentions the prognostic contained in the first two lines of the stanza. He there cites it as a Latin proverb found in the Norwich Domesday Book. The adage in the last two lines appears not to have been known to him.

According to Symons, 1345 was a year of drought. He calls it "the dry summer", and states that in March and April very little rain fell. No note of this has so far been found in any early writer. Lowe and some of the other compilers have it. N,p.28

Baker mentions it as from Pigott's "Chester". J,p.74

1346 End of a wet spell.

Grace: On Palm Sunday, that is, the 9th of April, died Robert Ufford, the Justiciar, amidst public rejoicing, and the weather became serene. . . . CF,p.141

See in 1343 for another note concerning Sir Ralph Ufford and the weather.

1346 Short has a note of a rain of toads in this year but no other record has been found. A,II,p.181

1347 Rough weather in the Channel about September 29.

Capgrave: Aboute the fest of Seynt Michael, the Kyng took the se into Ynglond and there had he grete tempest, and mervelous wyndes, and thanne he mad swech a compleynt on to oure Lady, and seide, "O, blessed Mayde, what menyth al this? Evyr, when I go to Frauns, I have fayre weddir: and whanne I turne to Ynglond intollerable tempestes!" AQ,p.213

Several chroniclers mention this incident and date it in 1347, but one Brut chronicle appears to give it about 1340. (Egerton MS. 650). Short allocates many tempests and hurricanes to this year. A,II,p.186

1347 Auroræ are noted by Short but no earlier reference has been traced. A,II,p.173

1348 Wet autumn and winter.

Chronicon Angliæ: In this year there were great floods of rain which lasted from the feast of the Nativity of St. John Baptist to the Christmas next following. AD,p.26

Knighton mentions the heavy rains this year during the tournament at Berwick. Many later writers refer to them, as, for example, Capgrave: In the XXII yere were grete reynes, whech dured fro the Nativite of Seynt Jon Baptist onto Cristmasse. AQ,p.213

Short is in some confusion as to the dates as he gives heavy rains from Christmas 1347 to midsummer 1348, doubtless following Holinshed. A,I,p.166 etc.

Sir R. Gregory gives 1348 as a mild serene year with a very mild winter, quoting John de Oxenedes. There is some confusion here as John died about 1292.

1348 Lowe refers to "dry fog with earthquake". This somewhat cryptic entry does not seem to be supported by any reference to an early authority. No original record has been traced. G.p.15

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1350 Some compilers, apparently beginning with Short, refer to storms and floods in this year. In one place, Short says the floods were followed by drought, and in another, by auroræ. This is evidently the source of the drought listed by Symons. No original account of any of these phenomena has been found, nor for the thunderstorms which Short places in this year. Baker notes a cold and wet summer in 1350 and 1351 but no authority is cited. A,II,p.173 etc.

1352 **Drought : Gale** about November 1.

Knighton : This summer was exceedingly dry, so much so that many beasts died in their pastures, and marsh lands became so dried up that ways appeared where none had been hitherto. And about the feast of All Saints there happened a great tempest of wind which uncovered houses and churches, overturned mills, uprooted trees and did much damage. DE,II,p.73

This is a contemporary account but some slightly later records such as *Chronicon Angliae* date this drought in 1353.

Chronicon Angliae states : In the same year, there was such drought from the month of May until July that during the whole time hardly any rain fell upon the earth. . . . AD,p.31

Other early annals have it in 1352 or 1353. The fifteenth century London chronicles seem to favour 1353. The compilers include it under 1352, 1353 or 1354, some of them in more than one of these years. It seems clear that only one of the years was droughty, probably 1352. Lowe particularly refers to Nottingham with the date 1354 but on what authority is not known. G.p.16

1353 Drought. See in 1352.

1353–1354 **Cold winter.**

Knighton : In the year there was a long, hard and cold winter. It began at the feast of St. Nicholas and lasted continuously until the feast of St. Gregory : and there followed a great and severe storm of wind destroying the roofs of churches, mills and great trees, and doing much damage : such a tempest had not been seen in our day. DE,II,p.76

Presumably this wintry weather was from December 6, 1353 to March 12, 1354. The rubric is 1353.

Several compilers include this severe winter in their lists. In addition, Short refers to severe gales at the end of March 1354. A,I,p.177

1354 Drought. See in 1352.

1355 **Storms** in early spring in the Firth of Forth.

Fordun : Being detained for 10 days on account of the same, a great wind came out of the desert regions, that is, from the north, driving his ships into danger, and submerging them in the deep. BT,p.374

Liber Pluscardensis places this storm in February. EE,p.228

1355 **Contrary winds** in the Downs.

Robert de Avesbury : And in the same place and at Sandwich the delay dragged on almost until the feast of the Assumption of the blessed Mary, the wind continuing nearly always in the west or in the south for the whole of the said time, so that he could not navigate towards the parts he wished to attain. EN,p.421

The delay appears to have been from about June 24 to August 15.

1355 **Aurora** (?).

Knighton : In the following summer appeared two banners in the sky, one red and the other blue, and in many parts of the kingdom they were seen by sundry, and they seemed to come together fighting one another : finally, the red banner defeated the blue and cast it down on the earth beneath it, as people saw. DE,II,p.80

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1356 **Stormy weather** off the Scottish Coasts in January and February.
Robert de Avesbury: The supplies which he had in that place were very scanty, and several English ships going towards that kingdom with victuals were so fearfully harassed by marine tempests that it was said that sundry of them perished, and others, impelled by the storms, were scattered to various harbours of England, and yet others were driven into foreign parts. EN,p.456

1356 **Drought** in spring, **wet weather** in summer.
Robert de Avesbury: Memorandum, that from the middle of the month of March until the feast of the nativity of St. John Baptist, in the aforesaid year of the Lord, it rained extremely little, and there was so much drought, that of barley, oats, hay, beans and all seed in many parts of England, only the fortieth part, or nothing, grew. After the said feast of St. John Baptist, it rained in great abundance, and the said crops, barley, oats, hay and beans commenced to thrive and grew sufficiently high and thick to make an "edgrowe". EN,p.468
Several compilers note the drought in this year but the rains which followed it seem to have escaped notice.

1356 Short gives a phenomenon on January 11 which might refer to an aurora. In any case, no earlier note of it has been traced, nor for the severe thunderstorms which he also allocates to 1356. A,II,p.173

1356 Floods. See in 1358.

1357 **Gale** about September 29.
Knighton: And about the feast of St. Michael there arose a great storm and they fled with many other English ships to the harbour of Yarmouth. . . .
John of Reading: There arose a storm about the feast of All Saints, on sea, as well as by land, and many perished. CZ,p.128
Possibly the storms referred to are the same, and took place sometime in October.

1358 **Large hail** at Carbury, Co. Sligo.
Annals of Clonmacnoise: There was a great shower of haile in the summer tyme of this yeare in the teritory of Carbry, every stone thereof was noe less than a Crabb. BA,p.300
Several Irish annals mention this event. The crabs referred to are, of course, apples and not shell-fish.

1358 **Floods** in Lothian on September 7.
Fordun: In the month of September, in the year 1358, on the vigil of the nativity of the Blessed Virgin, such a great inundation of rain burst forth in parts of Lothian, that from the time of Noah until the present day the like had not been known in the realm of Scotland, whereby the waters swelled up and overflowed their channels and banks, and spread over fields, villages, towns and monasteries: it overturned from their foundations, and destroyed in its rush, stone walls in villages and houses and very strong bridges. Also great oaks and stout trees standing near the rivers were torn up by the roots whence they were violently carried down to the edge of the sea. Crops also and cut stubble, exposed in places to be dried, were, with damage, dragged away from the use of men to places far and near. BT,p.377
Other annals refer to these disastrous floods. Boece, a later writer, dates them about the 27th David II, i.e. in 1355 or 1356. Fordun is the earliest writer to mention the incidents, and dates them definitely in 1358.

1360 Short has a note of gales on January 17 but no original notice has been found. A,I,p.179

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1360 **Thunderstorms** in summer.

Chronicon Angliae: At this time in England many people and beasts and trees violently perished through lightning. AD,p.44

Several compilers mention thunderstorms in this year, and others in 1361. Some of them, no doubt following Short, give the date April 14 in particular. This date, however, refers to the notable storm experienced by Edward III's army before Paris.

1360 **Aurora (?).**

Chronicon Angliae: And in the summertime of this year in flat and deserted places in England and France, and often visible to many, there suddenly appeared two towers, from which two armies went out, one of which was crowned with a warlike sign, and the other was clothed in a black color: they met and the soldiers overcame those in black. And a second time the warriors overcame the blacks, and returned to their tower, and the whole vanished. AD,p.49

Some later writers have this in 1361 or 1362.

Eulogium Historiarum, a later chronicle, has under date February 25, 1361, the following note: In this year on the 25th February at midnight, in the rarefied air, there appeared a certain luminous cloud like fire, and in the brightness of it were seen men. . . . BN,p.229

Whether the undoubted aurora described in the latter extract is the same as the one referred to in the former is impossible to determine.

1362 **Great gale** on January 15.

This remarkable storm is probably the severest in our records with the exception of that of November 26, 1703. It is mentioned by a great number of writers and evidently made a very profound impression which lasted for many years afterwards. Accounts are found in Scottish and Irish historians as well as English. The storm became known from its date as St. Maury's wind.

An early contemporary account is that of John of Reading: In the year of grace 1362, the 10th of our lord Pope Innocent, and 36th. of the reign of Edward III, king of England, the king in the winter was at Windsor: on the 15th day of January, the west or south wind called Affricus threw down and broke in pieces belfries, towers, trees, buildings and other strong things, the weak things being spared, and on land, as well as by sea, irretrievably destroyed good things: there hardly remained entire a house or a tree in its course. The strength of this wind did not abate for seven days and nights following. . . . . Afterwards, there were floods of rain in haytime and harvest which harrassed the labours of many in the country. CZ,p.150

Another early account is in *Chronicon Angliae:* The king kept his Christmas at Windsor, and the fifteenth day afterwards there was a vehement wind, the Nothus, Auster and Affricus, which burst forth with such strength that its blowing violently threw down high houses, tall buildings, towers, bell turrets, trees, and other strong and durable things and likewise it raged in such manner that the remains which are still extant are weaker even until now. AD,p.50

The scribe has evidently omitted the word "January" in his account. When writing "quinto decimo die sequente" he intended "quinto decimo die Januarii sequente". The winds indicated are from the south and west.

Eulogium Historiarum: In this year, dominical letter B, on the 15th. day of the month of January, at the hour of vespers, an unprecedented wind burst forth, coming from the south and west, which choked men, uprooted trees, cast down houses, towers, monasteries, belfries, steeples, orchards, and woods, and brought much other damage to human kind, whence it was believed by some that the misfortune was a scourging of God. BN,p.229

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Hardyng gives the following poetical account :

In that same yere was on sainct Maurys day,
The greate winde and earth quake meruelous,
That greately gan the people all affraye,
So dredfull was it then and perelous,
Specially the wind was so boistous,
The stone walles, steples, houses and trees,
Were blow doune in diuerse ferre countrees. CM,p.330

Capgrave mentions other verses : In the XXXVI yere blew the grete wynd oute of the southwest fro evensong til mydnyte, that blewe down many a hous ; of whech wynd these vers were mad :—

C. ter erant mille decies sex unus et ille
Luce tua Maure vehemens fuit impetus aure.

This is the Englisch :—

A thousand III hundred sexti and too,
Was Maurus wynd whech blew soo. AQ,p.221

The Anonimalle Chronicle includes more specific details : . . . amongst other things it threw to the ground the bell towers at Bury and Norwich and the fine belfry of the Austin Friars at London, and also of Norwich, and in several other towns in the country. AE,p.50

William Thorn mentions another incident : In the same tempest, a certain churchman of holy way of life, clothed day and night in sackcloth, his body sleepless with watchings, abstemious, mortifying himself continually in prayer, whose name was Ralph, expecting imminent peril from the weather turned away into the chancel of the church of St. Pancras as the safest place, for the roof of the aforesaid church was newly made, and he there remained. What further ? A great beam was thrown by the fury of the wind upon an image of the blessed Virgin, and the said cleric, being prostrated before the image in prayer, was killed, the image remaining intact, and he was buried in the aforesaid chapel before the cross under a stone of marble. . . . (*Chronica Gullielmi Thorni in Hist. Ang. Script. Dec.* p.2122).

Case records the gale in Ireland : Also in the feast of St. Maury, Abbat, there was a vehement wind, which shook and threw to the ground steeples, chimneys and other higher buildings, trees beyond number and divers belfries, and the bell tower of the Friars Preachers at Dublin. AT,p.396

1362 **Wet Year.**

John of Reading : Afterwards there were floods of rain in haytime and harvest which hindered the work of many in the country. CZ,p.150

Short refers to a very wet and unseasonable summer but cites no authority. Probably he quotes Holinshed. The only contemporary note traced so far is this one of John of Reading's.

Baker seems to give a drought to this year, and also to 1361, but on what authority is not known. A,I,p.179 J,p.79

1363 **Fertile Year.**

John of Reading : And let me say that this year in the seed time and growing time was windy and wet, yet the fields, trees and meadows brought forth their fruits abundantly. CZ,p.157

1363–1364 **Cold winter.**

Knighton : And a great frost and unusual cold was in this year and it lasted to the feast of St. Gregory and beyond. DE,II,p.119

Eulogium Historiarum : In the same year on the seventh of the ides of December it began to freeze : and it remained very severe frost until the 14th kalends of April. BN,p.232

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This frost is rubricated variously 1363 and 1364 in the early writers, but it seems that December 1363 to March 1364 is the probable dating. Most of the later London chroniclers refer to this severe winter, and it is to be found in nearly all the compilers under dates varying from 1363 to 1365.
Richardson (Vol. I, p. 131) mentions the event with particular reference to Newcastle upon Tyne, but on what authority is not known.

1364 **Hailstorms** in May.
John of Reading: There fell in various parts of England hail which killed strong animals: however, corn and wine were plentiful. CZ,p.161

1364 Lowe, quoting Camden, refers to inundations in the Humber during which Ravenspur was destroyed. A note in the *Meteorological Magazine* (63, 1928, p. 145) refers to the destruction of Ravenspur, but associates it with high tides in 1357. G,p.16

Camden has the following account: 16 Edward III, among other towns in Holderness bordering on the sea and Humber we find Tharlethorp, Redwayr and Penythorp, none of which are now to be heard of. About 30 Edward III the tides in the Humber and Hull flowing four feet higher than usual might then destroy them. About the same time also, Ravensere, which seems the same with Ravenspur and Ravensburgh, might be damaged and not long after totally lost. . . . . About 28 Edward III the lands and meadows between Sudcote Steel and Hull were overflowed when probably Ravensere was greatly damaged. (Vol. III of Gough's 1789 edition, p. 77.)

Ravenspur would thus seem to have been lost soon after 1357. The Melsa Chronicle does not seem to record the actual calamity itself. Ravenspur just disappears from the records.

1365 **Rains** in harvest time.
John of Reading: For the rains in harvest time consumed the hay and corn. . . . CZ,p.166

Short refers to this wet harvest as in 1365 or 1366. Most compilers who mention it give 1365, although Holinshed gives 1366. A,I,p.180 J,p.80

1365 Severe winter. See in 1363–4.

1366 **Aurora** on January 12.
John of Reading: In which night, there appeared in the west, after sun down until it rose again, a great redness covering the whole firmament: now bloody, now fiery white, beams were emitted backwards from it, illuminating the earth and its buildings just as if day were dawning. In which the stars twinkled more than usual . . . MM,p.169

Later he refers to falling stars on October 31 which burnt the clothes of people on whom they fell. CZ,p.175
The *Eulogium Historiarum* mentions a phenomenon on October 8, which appears to be a bolide of some kind. BN,p.241

1366 Rains. See in 1365.

1368 **Wet Year.**
Chronicon Angliae: . . . and by inundations of rain which followed, much damage was done to crops and in the following year a bushel of wheat sold for three shillings. AD,p.65

The dear year is mentioned by several writers, the dates being given variously as 1369 or 1370. The wet year would thus be 1368 or 1369, although some compilers also make 1370 a wet year.

1369 Wet Year. See in 1368.

1370 One compilation mentions a severe frost in this year, citing no authority. This is probably an error for 1363–4. No records seem to exist of any rigorous weather in 1370.

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1372 **Gale** on December 6 in Scotland.
Book of Pluscarden: In the year 1372 a wind called that of St. Nicholas burst upon Scotland, and overturned and blew down houses and churches and everything else fixed in the ground, such as trees, towers, the pinnacles of the temple, causing inestimable damage. EE,p.237
There is an event mentioned on a December 7 somewhere between 1367 and 1372 in the Melsa chronicle which may possibly refer to the same occasion as that recorded in the Book of Pluscarden: In the time of this abbat, in the year of our Lord . . . . . , in the night before the day of the feast of the Conception of the Blessed Mary, a bolt of lightning struck the church in two places, in the higher leaden roof of the same, by the spire above the crucifix, a little before the beginning of the guttering.
Unfortunately the MS. has a blank space for the date which the scribe never filled in.

1373 **Gale in Ireland.**
Annals of Connacht: Very great wind in hoc anno by which several churches were broken down. BC,II,p.49
No precise date is given.

1375 **Hot year.**
Walsingham: In this year there was an unusual heat, during which time there was a great pestilence in England as well as in various other parts of the world. FY,I,p.319
Most of the compilers have this drought. Baker mentions drought in 1374, 1376 and 1377. J,pp.82–3

1377 **Thunderstorm** on April 14.
Anonimalle Chronicle: In the same year 1377 on Tuesday in the feast of St. Olo, martyr, the very noble and very beautiful belfry and cross of the abbey church of our Lady of Deverick were, by a sudden storm of thunder and lightning, burnt with all their images, and a large part of the aisle near the choir, towards the south. The fire burned fiercely and reached parts of the nave of the church and the cloisters, and did great damage to the domestic buildings, but by the divine grace, the choir and the body of the church and cloisters were saved. AE,p.95

1377 **Unfortunate gust of wind** on July 16.
Adam of Usk: Thirdly, at the banquet, a sudden gust of wind carried away the crown from his head. . . . AA,p.201
This unlucky incident happened at Richard II's coronation.

1377 **Floods after frost** about December 25.
Chronicon Angliae: About the same time indeed so much water prevailed in parts of Northumberland by the melting of the snows which had covered the earth to a great depth, that the floods, mixed with very large fragments of ice, descending from the ridges of the mountains, overturned the houses of the farmers; goods which had been stacked on the ground, such as coal, millstones, wood, or crops, were carried away by the rush of the waters. And, further, falling into the sea, by the strength and concussion of the said blocks of ice, certain ships were either rendered useless by the violence of the collision with the ice, or entirely submerged. AD,p.109
Walsingham, in giving a very similar account, says it was about Christmas time. FY,I,p.323

1378 **? Lightning damage** at St. Andrews.
Book of Pluscarden: In the year of the said schism, the great church of St. Andrews, the roof of which was built entirely of lead, was burned down at the feast of the virgin Thecla, at the hour of

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High Mass, by the lightning, or by the birds' nests under the leaden roof and rafters catching fire from the heat of the blazing sun, as is conjectured. EE,p.238

Bower, however, says the fire was due to the carelessness of the plumber.

1379 Baker refers to an inclement spring. No earlier reference found. J,p.83

1379 **Gales** off the Irish coast on December 5.

Adam of Usk: For that noble knight, Sir John Arundel, being sent forth against the land of France to subdue it, with the flower of the youth of the country, had his fleet shattered, alas! by an unhappy storm on St. Nicholas' eve, and perished. AA,p.148

There are long accounts of this affair and the storm in *Chronicon Angliae* and Walsingham.

1381 See in 1382.

1381 **Severe weather** in February.

John Malvern: In this year about the Purification of the Blessed Mary the greater part of Rochester bridge was broken down: certain great masses of ice which, after the thaw by the warm air, bearing their great weight on parts of the bridge, broke it down. CX,p.1

1382 **Solar phenomena** on May 22.

John Malvern gives an account of the earthquakes which were felt in May, notably on the 21st and 24th of the month. He also notes: On the morrow of this earthquake about 12 o'clock, there was seen a very black, cloudy, immense and broad circle around the sun. CX,p.13

Some writers have this in 1381.

1382 **Heavy rains** from December 18 to 20.

John Malvern: For two days and three nights before the feast of St. Thomas the apostle, there were continuous inundations of rain, whereby in various parts of England the waters increased and overflowed so much that there followed immense damage to the crops and other things. . . . The king held his Christmas at Westminster, having proposed to hold the same at Windsor, but he was prevented by the extent of the floods, and so much rain unexpectedly increased the great floods in several places that all the flocks and the various herds of sheep were cut off, and the waters raised themselves to such a degree that men, in consideration of their lives, sought the highest floors of their houses, and the topmost parts of trees. CX,p.16

1383 In several places Short refers to severe thunderstorms during the night of March 25, but no earlier reference has been found. A,I,p.182

1383 **Thunderstorm** casualties at Ely in June.

John Malvern: It happened on the same day that a certain knight of the king's, named James Beernes, and an intimate friend of his, was blinded by a stroke of lightning in the king's presence and fell as if bereft of his senses. CX,p.20

1384 **Severe weather** in the north about mid-April.

Knighton's Continuator: And there followed a snow and frost which was very harmful and oppressive, and many Scots as well as English by reason of it were taken prisoner. DE,II,p.203

1384 **Severe Thunderstorm** on August 16.

Walsingham: In the same year on the 16th day of the month of August, in the evening and during the following night, there was heard throughout England a most horrible thunder, and terrible lightning was seen, which terrified a great many mortals. FY,II,p.117

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1384 **Dry summer, wet autumn and winter.**
John Malvern : Moreover, in this summer there was such a drought that the rivers and springs which flowed and gushed forth perennially from the earth were seen marvellously to be dried up, with the deepest wells also. And this drought lasted until the feast of the Nativity of the blessed Mary. And hence to the feast of the Purification of the same Virgin it rained continually except for a few days. Indeed, great animals perished in the drought through lack of water. CX,p.43

1385 The Book of Pluscarden records gales, etc. in the vicinity of Inchcolm due to St. Columba's indignation against English sea ravagers in that area. No precise dates are given. EE,p.245

1385 **Thunderstorms** on July 10.
Walsingham : In this year, on the day after the translation of St. Thomas of Canterbury, Archbishop and Martyr, about three hours after noon, thunder was heard and coruscations of lightning were seen, continuously for an hour, by which many hearts were terrified : and by the thunderbolts certain people were killed in many places, and others fatally injured. FY,II,p.130

1385 (?) **Auroral appearances** on July 15.
John Malvern : Also on the 15th day of July at London and likewise at Dover, there appeared after sunset a kind of fire in the shape of a head in the south part of the heavens, stretching out to the northern quarter, which flew away, dividing itself into three parts, and travelled in the air like a bird of the woods in flight. At length they joined in one and suddenly disappeared. CX,p.62

1385 **Hot summer and early autumn.**
John of Malvern : Further in this year there was in the summer an unusual heat and it endured almost from the beginning of May to the feast of the Nativity of the Blessed Mary. Nevertheless water was not so scarce as it was in the next year. CX,p.60

1386 **Floods** at Exeter in January.
John Malvern : Also about the beginning of the month of January or soon after there was a great inundation of waters in Devon near the city of Exeter which violently carried away from their places the bridges and houses built in its path, and many were entirely submerged. CX,p.78

1386 **Winds** in the Channel from August to October.
Capgrave : In these dayes was it noysed that the Kyng of Frauns was comyng to distroye Ynglond, with XV dukes, XXVI erlis, C knytes, a cM. men, schippis a MCC. He lay at Slus fro the Kalendis of August to the Vigile of Alle Seyntis, and nevir had wynd. Than had he wynd tyl he was in the myd se : and thoo turned it contrari, and brak many of his schippis or thei cam to londe. AQ,p.243

1387 **Hot summer.**
John Malvern : The past year was sufficiently fruitful, having in the summer very burning heats. CX,p.102

1387 **Thunderstorm** at Huntingdon on February 7.
Bermondsey Annals : In this year on the seventh day of the month of February there was a great tempest of lightning at Huntingdon, the moon being nineteen days old. AL,p.481
The rubric is 1386 but the event is allocated to the 10th Richard II, so that 1387 is the true year, a date which is confirmed by *luna currente per xix.*

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1387 **Coloured rain** at Derby on October 14.
Knighton's Continuator: And on the 14th of the month of October there appeared in the county of Derby a certain small cloud about the sixth hour, so it was said, and it rained blood over a space as great as a bowshot in circuit. DE,II,p.241

1387 **Aurorae** in November and December.
Knighton's Continuator: A certain appearance in the likeness of a fire was seen in many parts of the kingdom of England, now in one form, now in another, nearly on a single night, yet in various places, throughout the months of November and December. . . . And some appeared in the form of a burning revolving wheel, others again in the form of a round barrel of flame emitting fire from above, yet others in the shape of a long fiery beam, and it thus appeared in one form or another through a great deal of the winter, especially in the counties of Leicester and Northants. DE,II,p.257

1388 **Storm** on January 9.
John Malvern: Also on the ninth day of January there was a great storm of snow and hail with a very vehement wind and flashes of lightning, and thunder as well, and it lasted continually throughout the three days following. CX,p.116

1388 **Desiccation of the Thames** on February 1.
John of Malvern: Also on the first day of February the river Thames was without water beyond Abingdon . . . and it remained so for an hour, a great and significant portent of the future. CX,p.118

1388 **Fireball** (or aurora ?) in April.
Knighton's Continuator: In the month of April a flying dragon was seen in many places in England. DE,II,p.260

1388 Baker states "wet harvest," but cites no authority. J,p.85

1389 Gale. See in 1390.

1389 **Severe thunderstorm** on July 13.
Walsingham: The lead of the churches during this time was liquified by the celestial fires: in Sussex, in the town of Manfield, the collegiate church of the archbishops of Canterbury was burnt with nearly all the town: and a certain estate in Essex, and ships with their sailors, and other things in various places were consumed by the strokes of lightning. FY,II,p.184

1390 **Gale** on March 5.
Walsingham: On the fifth day of March a great, terrible and harmful wind blew in England, tearing off roofs, overturning houses, throwing down animals, prostrating trees and causing general inconvenience. FY,II,p.197

John Malvern records this gale and adds that it was on the western coasts. Many of the compilers give the date as 1389. CX,p.222

1390 **Hot summer.**
John Malvern: About the beginning of the month of June a great heat grew up and lasted until the month of September. CX,p.237

1390 **Heavy thunderstorm** on August 5.
John Malvern: Also on the fifth day of August there was a great storm of rain mingled with clamourous thunder and darting lightning, and this alarming tempest lasted for more than two hours, and so violent was the rain that no house, however well covered, was able to withstand its vehemence and that water did not enter by one way or another. CX,p.240

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1391 **Solar phenomena** on July 9.
Walsingham : In this year in summer, on the seventh of the ides of July, the sun appeared red through an intervening thick and foul cloud and afforded hardly any light from midday to its setting. And for nearly six weeks afterward there was abundance of cloud at the time of midday. And this cloud lasted without passing away for a whole day and night. FY,II,p.202
This period of dark and dismal weather is noted by Short. A,I,p.182

1391 **Thunderstorms** in northern England in August.
John Malvern : Also in the month of August in the northern parts there were unprecedented storms of thunder, lightning and rain. CX,p.260

1391 **Stormy weather** in the North Sea in December.
Hakluyt gives an account of a voyage of the Duke of Gloucester to Prussia, quoting Thomas Walsingham. He records : Howbeit having skarce passed as yet the bounds of his owne countrye, he was immediately by hard fortune tossed up and downe with dangerous stormes and tempests, and was brought into such distresse that he despaired even of his owne life. At length . . . he returned into Northumberland. . . . CL,I,p.102
John Malvern refers to these storms, which apparently occurred in December. CX,p.263

1392 **Stormy year.**
Icelandic Annals : A bad year for voyages in shipwrecks and foul winds both with Germans, English and Norwegians. CS,p.421

1392 **Storms** in September.
John Malvern : On the 3rd day of September in the morning there was a great tempest of thunder and lightning, and it became so violent that a certain man near by Hampstead was killed by a bolt and his clothing was burnt and scorched and torn into small shreds. CX,p.277

1392 **Heavy snows** in November, **gale** on December 21.
John Malvern : At the end of November there fell a great snow in abundance and likewise about the feast of St. Thomas the apostle there was a great tempest both by sea and by land so terrible that men were seized with fear. CX,p.278

1393 **Thunderstorms and rains** in September.
Annals of Richard the Second : In the month of September in many places flashing lightning with horrible thunder terrified many, and great damage was brought upon certain people : for, passing over many other places which experienced damage, the town of Lolworth in the county of Cambridge was more violently affected, so that very many houses in that town, with the crops there gathered and the grain heaped in the fields, were burnt and such an offensive smell corrupted the ashes that the nearer owners were afraid to approach. EM,p.158

The same annals add : Later in the month of September at Newmarket, and near by the town of Bury, such floods of water fell from the clouds, that two houses in the town were demolished, the men and women being nearly brought into peril of drowning. EM,p.159
Walsingham also has an account of these events.
There are many confused entries in Short relative to all this and to the storm recorded by John of Malvern in the September of 1392. In one place, Short refers to severe thunderstorms in September and a very wet October in 1392. On the same page similar events are allocated to 1394. In another place both years are again given for the phenomena. Yet again the floods are given to October 1394 and the thunderstorms to 1394. Hennig although he follows Short appears to give the events as all in 1394.

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1393 **Floods** in the Humber.
Melsa Chronicle: Also there were inundations of the Humber in our lands at Tharlesthorpe up to the site of our grange and the same was miserably destroyed. DS,III,p.183

1393 Lowe assigns a very hot and dry summer to this year and also to 1394 but no original notice of the phenomena has been found. Symons and Shaw, following Lowe, include both years as periods of drought. G,p.16

1394 **Strong winds** on August 15 at Canterbury.
Thorne: . . . these same prelates held a "feast for the jaws" in tents, which were covered with palls, silk and gilded, from the aforesaid church, but which were split, torn, and even reduced to shreds by the rain and violence of the wind (Chronicle, Oxford, 1934, p.675).

1394 **Much wind** in the summer.
Fabyan records as in 18th Richard II: In this yere also was wonderfull tempest of wynde by the space of Iuly, August, and specially Septembre, by vyolence wherof, in sundry placys of this lande, great and wonderfull hurte was done bothe of churchys and housys. BP,p.539

So far no note of this has been found earlier than Fabyan's. Short in giving the details has the year as 1396. A,II,p.184,etc.

1395 There are references in Holinshed to auroral displays in November and December but on what authority is not known. Possibly they refer to those recorded by Knighton's Continuator in 1387. J,p.87

1396 Short notes an auroral display in April but no reference to any original source is made and none has been found. A,I,p.184

1396 **Gale and thunderstorm** on June 25.
Melsa Chronicle: Thus in the time of the same abbat, in the night following the day of the nativity of St. John Baptist, in the year of the Lord, 1396, a whirlwind coming from the south, accompanied by lightning and thunder, at the church at Kanyngham. . . . (there follows a long description of the damage). DS,III,p.193

1396 Windy summer. See in 1394.

1396 **Stormy weather** in November.
Annales Ricardi Secundi: He therefore returned safely soon after with his wife: but his tents were lost and a great part of his household furniture by a contrary tempest. EM,p.194

1398 Baker says much rain in autumn, but gives no references. J,p.88

1399 **Desiccation** of the Ouse on January 1.
Annales Ricardi Secundi: Also another omen was seen near Bedford on the day of the Circumcision: certainly, a most deep and rushing river which flowed between the villages of Snellston and Harslowe, suddenly ceased flowing from the higher place and remained . . . (blank here in MS) . . . the river flowed from another sloping place, so that for three miles it remained dry to a depth never before seen, signifying, it was judged, a division between the people and the king and the defection from King Richard which began this year. EM,p.229

1399 **Stormy weather** in the Irish Sea in May and June.
The following details are from an account entitled "The Story of King Richard the Secund, his last being in Ireland" and purport

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to be a translation from the French by George Carew, earl of Totnes. It is in Walter Harris' *Hibernica*, Part I, pp. 50, 54 :

> The 11th of the same moneth the king with a fair gale of wind . . . set sayl . . . (i.e., 11th May, from Milford Haven to Waterford) . . . During the space of six Weeks we remained in Dublyn . . . but in all that tyme, by reason of foul weather and contrary winds, we nevir heard out of England.

§ 11—Fifteenth Century.

1400 **Inundations** in the Humber.

Melsa Chronicle records in this year an inundation of the Humber which flooded Tharlesthorpe and other manors of the abbey. DS,III,p.**283**

1402 **Violent thunderstorm** on May 25 in Essex.

Annales Henrici Quarti : On the feast of Corpus Christi, which fell on the eighth of the kalends of June, about three o'clock in the afternoon, suddenly there happened flashings of lightning with a whirling tempest and horrible crashes of thunder, terrifying the hearts of many people . . . (there follows an account of a devil appearing to a man at Danbury and injuring him) . . . At the same hour, the top of the ablution place of the same church was broken and the middle of the chancel destroyed and scattered. CN,p.**340**

Several compilers note this. Short has it in several places, at one of which he misdates it Corpus Christi eve. A,II,p.**184**

1402 **Thunderstorms** at Hertford on June 24.

Annales Henrici Quarti : On the feast of the nativity of St. John Baptist, from the third to the sixth hour, there was thunder and fiery lightning flashing from all sides . . . (there follows an account of a devil which did damage to All Saints, Hereford, during this storm). CN,p.**342**

1402 **Very cold weather** in Wales in August and September.

Annales Henrici Quarti : Chiefly, indeed, as it was judged, by magical art, he almost destroyed the king and the army which he led : for from the day on which he entered the borders of Wales until he left the aforesaid parts, serene airs never smiled on him, but on all the days and nights, rains, mixed with snow and hail, so afflicted his army that they could not sustain themselves from the intemperance of the excessive cold. Also on the vigil of the nativity of St. Mary, when the king had pitched his tent in a very pleasant meadow, where, apart from the nature of the place, nothing was to be dreaded but much rest was to be hoped for, suddenly in the first watch of that same night there fell such an abundance of rain as seemed able almost to drown the English. There followed, besides this, such a whirlwind that this same king's tent was broken, torn and dashed to the ground and the king's lances were violently thrown and transfixed in the royal armour. . . CN,p.**343**

Hardyng versifies this and alludes to Henry IV's general ill luck in the matter of weather in the Welsh campaigns :

> The kyng Henry thryce to Wales went,
> In the haye time and haruest dyuers yere,
> In euery tyme were mystes and tempestes sent,
> Of wethers foule that he had neuer power
> Glendour to noye, but euer his caryage clere
> Owen had at certayne straites and passage
> And to our hoste dyd full greate damage.

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The kyng had neuer but tempest foule & raine,
As longe as he was ay in Wales grounde,
Rockes & mystes, windes & stormes euer certaine,
All men trowed y^t witches it made that stounde. CM,p.359

1403 Floods. See in **1404**.

1404 **Extensive marine floods** in Kent.

Annales Henrici Quarti: At this time there happened in Kent and in many places unprecedented irruptions of waters, through which many mansions were washed away, and animals of various kinds were drowned. And, while we are silent as to others, the lord of Canterbury and the Prior of the same place incurred the loss of a thousand pounds. At Calais also the water of the sea flowed into the town beyond the walls. CN,p.394

Short gives the date correctly in one place and as 1404 or 1406 in another. Holinshed appears to give the more precise date November 11, 1404 although this does not seem to occur in any of the records. Capgrave has it in 1403. J,p.89 AQ,p.288

1404 Lambeth Chronicle records in the 6th Henry IV: The same yere was a grete frost that endured xv weeks and mo. DG,p.53

This is clearly intended to refer to the severe winter of 1407–8 as a precisely similar entry is found in this chronicle under the 11th Henry IV. By some error the scribe has recorded this frost twice but in different years.

1406 **Storm** at Flamborough Head early in April.

Book of Pluscarden: At Flamborough, however, they happened to be caught in a storm and the prince and all his suite were taken by their enemies the English. . . . EE,p.262

Wyntoun, a contemporary Scottish writer, says that James I was taken prisoner on April 4, 1406.

1406 Lowe cites a hot summer this year and Short mentions "warm South winds" but no original source of either of these notes has been found. H,p.26 A,I,p.185

1406 Severe winter. See in **1407–8**.

1407 **Unseasonable year** in Ireland.

Annals of Clonmacnoise: There was foule & badd weather this yeare and a great murren of cattle. BA,p.327

1407 Short refers to a "corrupt sultry summer" but on what authority is not known. According to the Chronicle of London, it was a very plentiful year. B,p.46 DL,p.91

1407 **Floods** in the Wensum.

Knights has the following note: We may infer from Jeffry Bixton's gift of a house in 1407 to repair the banks of the Wensum, that there had recently been a flood. DF,p.6

1407–1408 **Severe winter.**

This is one of the most rigorous winters on record and was general on the continent as well as in Britain. Easton gives a great many notices of it.

The earliest contemporary native account is in the *Eulogium Historiarum:* In this year moreover there was a great frost in England which lasted for fifteen weeks. BN,p.413

Walsingham's account is also first hand: In the year of the Lord 1408 there was a most bitter winter and abundance of snow, lasting through the months of December, January, February and March: birds such as thrushes and blackbirds, perished almost entirely through hunger and cold. FY,II,p.277

The account in the MS. Cotton Julius B II seems also to be practically contemporary: In the same yeer was a gret froste and longe durynge, ffor men myht gone over Temese vpon the yse. And yt distroyed much wilde fowle. AZ,p.68

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There are accounts in many of the later chroniclers, especially in the London chronicles of the XVth century. The dates vary from 1406 to 1410 but the winter 1407–8 appears to be the correct dating. The duration also varies from 14 to 15 weeks and Gregory, a XVth century writer, gives xxv weeks, probably a *lapsus calami* for xv weeks. CH,p.105
The compilers all have this frost in their lists under varying dates. Short seems to stick to the correct date in this instance.

1408 **Floods in September,** especially at Ware on the 7th.
Eulogium Historiarum: Moreover the waters of the rivers in the northern parts of England overflowed violently upon the land in the beginning of September: and in the night of the nativity of the Blessed Mary such a force of waters descended from the hills on the town of Ware and threw down houses, that men were crying out all over the town through fear, believing they were to be drowned: and the Convent of the Friars Minor at the same place was so flooded with water that on that same day no mass or divine office was said there. BN,p.413

1409 Baker says "summer generally wet." No authority cited. J,p.90

1409 **Gale** on January 14.
Liber Pluscardensis: The same year was the great gale of St. Kentigern, which tore up by the roots trees in the forests and produced many extraordinary effects. EE,p.263

1409 Severe winter. See in 1408–9.

1411 **Disturbed tides** in the Thames on October 12.
Eulogium Historiarum: In the year of the Lord 1411 and the 11th of King Henry IVth, after the feast of St. Michael, the Thames at London ebbed and flowed thrice in a natural day. . . . BN,p.418
Other chronicles give the day as October 12, and if this is correct there is some error in the *Eulogium* as the October 12, 1411, was in the 13th Henry IV. The later London chronicles all give the 13th Henry IV as the year so that the error in the *Eulogium* is probably a slip of the pen on the part of the scribe. Baker quotes Holinshed as giving this in 1413. J,p.91

1411 Baker notes a dry and hot summer but gives no references. J,p.90

1412 **Floods** in Ireland.
Annals of Connacht: Catherine, daughter of Maelechlainn, . . . was drowned by a rushing flood whilst going to Sunday-mass from her own house. BC,II,p.143
No precise date or place is given.

1412 **Thunderstorm** at Winchelsea on December 28.
Eulogium Historiarum: Also in the same year in Christmas week, on the feast of the Holy Innocents, there happened at Winchelsea a sudden thunder: and the lightning converted the belfry of St. Giles with the whole church and the bells to ashes and by no human help could it be delivered. BN,p.421

1413 **Stormy weather** in the Thames estuary about March 21.
Clement Maydestone gives a strange story which he heard a person tell his father Thomas Maydestone, that, as the body of King Henry was being carried by water to Faversham, a storm arose and the body was thrown into the sea by this stranger and two others, and the waves subsided upon the body being thrown out. The storm scattered the eight boats containing members of the nobility which followed in procession and these men carried the splendid coffin on to Canterbury where it was buried. Hence the monks say, "The sepulchre of Henry IV is with us, but his body is not."

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1413 **Very wet weather** on April 9.

The wet weather on Henry V's coronation day is well known and is mentioned by several contemporary writers.

Adam of Usk : On the same day an exceeding fierce and unwonted storm fell upon the hill country of the realm, and smothered men and beasts and homesteads, and drowned out the valleys and the marshes in marvellous wise, with losses and perils to men beyond measure. AA,p.299

Walsingham : In the same year, at London, Henry, first born of King Henry who died recently, was crowned on the fifth of the ides of April, being Sunday in the Lord's Passion. On which day there was a great tempest of snow, everyone wondering at the sharpness of the weather. FY,II,p.290

According to Walsingham the weather was construed as a favourable omen.

Hardyng :

> On Passyon Sondaye after was this kyng
> Anoynted and crowned without taryeng,
> The ninth daye it was of Apryll so
> With stormes fell and haylestones greate also. CM,p.371

The *Elmhami Liber Metricus de Henrico Quinto* records :

> Ne gens in tenebris, contempta luce, sederet,
> Ecce ! salutis opes hac regione micant.
> Turbo silet, glacies defluxit, bruma recessit,
> Approperans æstas vere vivore micat.
> Immitis Boreæ cecidere minæ, calet Auster ;
> Plura fluenta tamen stant, cremat ignis edax.

1413 **Wet year.**

In the *Elmhami Liber Metricus de Henrico Quinto* there is a footnote to the episode mentioned above to the effect that there were great floods of water in the same year.

Another contemporary writer, John Capgrave, after mentioning the events of April 9th, says : In the winter of the same year there were great floods of snow and rain. . . . AR,p.125

1413 **Storms** off the west coast of Ireland on June 9.

Four Masters : Tuathal O'Malley, having gone for refuge into the province of Ulster . . . he set out for home with seven ships, about the festival of St. Columkill, but a storm overtook them off the western coast, which drove them to the south of Alban where six of the ships were lost with their crews. . . . DL,p.213

1413 The severe frost referred to by Thomson in this year is certainly an error for the winter 1433–4. FO,p.68

1413 Luckombe (p. 171) mentions a " storm in London in which the leads of Grey Friars church and the whole side of the street called the Old Exchange was beaten down," on November 25. E,p.139

Gutch follows him in this.

This is an error. The event in question took place in 1438.

1414 Baker quotes Thorold Rogers as noting a dry summer. No authority cited. J,p.91

1415 The pamphlet *Mirabilis Annus* refers to aurorae seen in England just before the battle of Agincourt but no contemporary writer appears to mention the phenomenon. DW,p.15

1416 **Gale** early in February.

Walsingham : About the feast of the Purification seven dolphins disported themselves in the Thames, of which four were killed : foreshadowing, as some maintained, the great tempest of wind and rain which continued afterwards. FY,II,p.314

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1416 **Violent thunderstorms** on June 14.
Walsingham : On the feast of the Trinity and for a period of two days after, there was heard horrible thunder, exceeding all custom, and as if sustained without intermission : which was preceded by terrific lightning flashing without cessation, whereby many were thrown down and killed : trees were set on fire and buildings broken up. FY,II,p.316

1419 **Heavy snow** on December 8.
Bermondsey Annals : This year in the night of the conception of the Blessed Mary was a huge snow, the moon being 14 days old. AL,p.485
The year given agrees with the regnal year but the age of the moon on December 8 does not appear to be correct.

1419 **Gale** with snow on April 13.
Icelandic Annals : A winter very changeable as to weather but not very harmful . . . Then there came on Maundy Thursday such a hard gale with snow that far and wide all round the land English ships had been wrecked, not fewer than 25 . . . The gale came on a little before breakfast and lasted not quite till noon. CS,p.434
Perhaps this is the same event as Short puts in 1418 : Severe storm damaging the English navy. A,I,p.185

1419 **Hot summer.**
Annals of Ulster : The hot summer and the harvest of the numerous nuts happened the same year, and so on. FT,III,p.83
The rubric is 1419, otherwise 1420. The former is probably the correct historical year.

1421 Brooks and Glasspoole mention great sea floods on November 19 in this country and there is a similar note in *Nature*, 126, 1930, p. 792. Hennig (p. 36) also refers to these floods, but cites no British writer. No original record of such an event has been found. R,p.86

1423 **Wet year.**
A St. Alban's Chronicle : In this year hail came on the day of St. John Baptist : rain continued from that feast : and there was choking of the grain from St. Peter ad Vincula to the vigil of St. Lucy in December. The Christmas afterward was serene. EX,p.6
Accounts of this occur in the London Chronicles. Thus, the Chronicle of London : Also the same yere in somer tide was great plente of al maner cornes and fruytes : but a litle before Midsomer there bigan to falle moch reyne, which contynued lasse or more every day as for the moost partie ; howsoever the wynde stode unto viij daies bifore Cristmas, so that men myght not gadre ynne there, and namely the codde corne, and yet was there plente of corne ynough. DL,p.165

1424 **Thunderstorm** on December 29.
Bermondsey Annals : In this year on the day of St. Thomas, martyr, beyond the Lord's nativity, about 10 o'clock before midnight, there was great lightning and thunder, fierce wind, rain and hail : and it lasted till 5 o'clock the following morning, the moon being 19 days old. AL,p.486

1425 **Unseasonable weather** in Ireland.
Annals of Ulster : Great inclemency in this year, and it lasted from November day to May day so that it brought great destruction on cattle and loss of tillage and loss of people on the whole of Ireland. FT,III,p.97
Presumably November 1, 1424 to May 1, 1425, is the period intended.

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1426 **Earthquake with thunder and lightning** on September 28.
Stow : On Saturday the even of Saint Michaell the Archangell in the morning before day, betwixt the houres of one and two of the clocke, began a terrible earthquake with lightning and thunder, which continued the space of two houres, and was universal throughout the world. . . . FJ,p.368
Short has both September 29 and 30 as the date. Hennig quotes it from him.

1426 **Gale** on November 15.
A St. Albans Chronicle : In the same year, in the day and night of St. Machutus, there was a great threatening of wind, many buildings being thrown down and levelled. EX,p.7

1426 **Dry year.**
A St. Albans Chronicle : In the year of the Lord 1426 there was drought in the waters and springs of the whole realm. EX,p. 10

1427 **Thunderstorm** on May 28.
A St. Albans Chronicle : In the fifth year of King Henry the Sixth, on the vigil of the Ascension, from the ninth hour to the ninth hour of the following day, there was such abundance of rain, lightning and thunder, with freezing wind and obscurity of the air that men were struck with fear that the crops would be choked by the inundation of waters. EX,p.15

1427 **Floods** on July 11.
A St. Albans Chronicle : In the same month of July on the translation of St. Benedict, there was a flood of rain which choked the hay and crops. EX,p.17

1427 **Thunderstorm** at Barnwell on September 12.
A St. Albans Chronicle : At Stourbridge fair on the vigil of the vigil of the Exaltation of the Holy Cross, that is, on the sixth day of the week, there was thunder, lightning and rain such that all in that place were stricken with great terror. EX,p.17

1427 Short says " very mild winter, vegetation flourished on 6th December ". He claims to be citing the Anglo-Saxon Chronicle, a history which terminates 200 years previously. A,I,p.186

1428 **Wet year.**
All the London chronicles refer to a very wet year about this time but their dates vary between 1427 and 1428. The date would appear to be 1428.
The following notes on this year are found in a St. Albans Chronicle : The course of this year was very various : in winter time it was dry : from the eve of Coena Domini rather wet until the end of the month of June. EX,p.22
In 1428, the eve of Coena Domini was March 31. The same writer says later : On the morrow of St. Giles they brought in the first sheaves to the barns of St. Peter because this had been a rainy time and harmful to the inhabitants, and from the last day of March to the third day of September, there was not at the same time three clear nights and days together, but that they were followed by a violent wind and showers of dripping rain, and afterwards there was very wet weather lasting for days and nights until the feast of St. Martin. EX,p.26
It would appear from this that there was rainy weather all the time from April to November, and there can be no doubt that the wet year was 1428.
Chronicle of London : This same yere fro the begynnyng of April into Halwemasse was so gret abundance of reyn, where through nought only hey was distroied, but also moche corn, for it reyned almost every other day more or lasse. DL,p.116

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Cleopatra C IV : This same year fro the begynneng of Aprill in to halowmas whar so grete habundance of reyne, wher thorow not oonly hay whas destroyid, but allso moche corne, ffor yt reyned almost euery day. AZ,p.131

The dates in the compilations also vary from 1427 to 1428 and sometimes both are included.

1428 **Sundry weather notes.**
A St. Albans Chronicle :
8th-9th October. . . . on the vigil of St. Dionysius, the sixth day of the week. On which day and the Saturday there was a huge flood of rain and the crops were badly choked.
1st November. On Monday in All Saints there was thunder at one o'clock in the afternoon.
4th November. On Thursday before the feast of St. Leonard, after the second hour of supper, there was rain and hail.
6th–11th November. About the feast of St. Martin, the weather being cold and clear, with hoar frost and ice, to the feast of St. Leonard. . .
19th November. On the octave of St. Martin, about the seventh hour in daybreak, there was a redness of the firmament and in the windows of the churches and on the walls. . . . EX,pp.30,31

1429 **Cold weather** in February.
A St. Albans Chronicle : On Ash Wednesday, the convent was not barefooted in procession on account of the unusual bitterness and cold : and not for that whole Quadragesima until Good Friday. EX,p.33

1429 **Cloudy** on May 5 and **wet** on May 6 at St. Albans.
A St. Albans Chronicle : In this year, on the day of the Lord's ascension, the Martyr was carried round the circuit of the town, on which day there was dark cloudy weather : but immediately they brought forth the bier clear light shone resplendent and the whole day was bright : but on the morrow, the day of St. John ante Portam Latinam, there came great rains. EX,p.36

The martyr referred to is, of course, St. Alban. It was the habit of the convent to carry his relics in procession upon certain occasions such as Ascension Day.

1429 **Lightning** damage at Durham on May 26.
Richardson (Vol I, p. 153) quotes : On the midnight preceding Corpus Christi day, the lantern of Durham Cathedral was set on fire by lightning while the monks were at prayer and most materially injured.

So far, no earlier record of this incident has been traced.

1430 **Stormy weather** on December 8.
A St. Alban's Chronicle : On the day of the Conception of the Blessed Mary there was wind, hail and rain. EX,p.56

1430 **Very stormy weather** on December 14 (?).
A St. Alban's Chronicle : On a certain Thursday in the morning about 5 o'clock there was a violent hail, a huge rain, thunder and lightning, continuing for four hours, making the hearts of many to quake. EX,p.57

The precise Thursday is not stated, but it was between December 8 and 31, possibly the 14th.

1430 **Very wet weather** at the end of the year.
A St. Alban's Chronicle : On the day of St. Silvester and for the three preceding days there was rain, which continued into the new year : weather dreaded by farmers. EX,p.57

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1431 **Lightning** damage at Salisbury.
Easton : The spire of Our Lady church was set on fire by lightning. BH,p.3
The exact date is not given and no original reference has been traced.

1431 **Stormy weather** on January 25.
A St. Alban's Chronicle : On the Conversion of St. Paul, in the morning, there was heavy rain and vehement wind before the ninth hour. After the ninth hour the light shone out and brightened pleasantly and quickly afterwards : at the hour of vespers hail supervened with thunder and nocturnal lightning. EX,p.60

1431 **Snow** on January 27.
A St. Alban's Chronicle : In the night of St. Agnes the Second snow and ice came before the feast of the Purification. . . EX,p.60

1431 **Weather** on February 21.
John Lydgate has the following verses concerning the entry of Henry VI into London on February 21. The weather references may be merely poetic in character or may possibly refer definitely to the February of this year :

Toward the ende of wyndy Februarie,
Whanne Phebus was in the fysshe roune,
Out of the signe which is callyd Aquarie,
Newe kalendas were entred and begonne,
Of Marches comyng, and the mery sone
Upon a Thorsday shed hys bemys bright
Upon London, to make them glad and light.

The stormy reynes of alle there hevynesse
Were passyd away, and alle there grevaunce,
For the sixte Henry, rote of there gladnesse,
Ther hertys joye, ther worldis suffisaunce,
Be trewe assent crownyd Kyng of Fraunce ;
The even rejoysing the day of his repaire
Made at his comynge the wedir to be so faire.

A tyme, y trowe of God, for hym provydyd,
In alle the hevenes there was no clowde sayne ;
From other daies that day was so devyded,
And fraunchisyd from mystys and from rayn ;
The erthe attempred, the wyndes smothe and playne,
The Citezeines thorugh out the Citee,
Halwyd that day with gret solempnyte. DL,p.235

1431 **Changeable weather** on May 10.
A St. Alban's Chronicle : On Ascension day they carried two biers around the town with the bier of St. Alban and with torches, lights and great trumpets : and, whereas, before the carrying of the Martyr the weather was wet, in his carrying the weather became serene, to the gladness and rejoicing of the whole populace. EX,p.63
A similar incident occurred in the procession of St. Alban in 1429 (q.v.).

1431 **Stormy weather** in the Channel on November 24.
English Chronicle : And this same yere, on saint Katerineȝ eve, the lord FitzWatier wolde haue come fro Normandie in to Englond, and ayens the wille and counsel of the shipmenne wente heddily to ship at Dope ; and whanne he was in the se, ther fil on him a greet tempest, and drounde him with moche othir peple. BL,p.54
Gregory refers to a general storminess in 10th Henry VI : And moche harme done in the see of late of schyppys that were lade whythe wyne fro Bordowys by the grete tempasse in the see. CH,p.175

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1432 Severe winter. See in 1433–4.

1433– **Very severe winter.**

1434 This remarkably rigorous winter is recorded by many chroniclers and compilers. There are some slight confusions of date. All writers agree that it lasted till about February 14, and one chronicle states that it lasted till about Shrovetide. This makes it nearly certain that 1433–4 is the correct dating as Shrove Tuesday was on February 9, in 1434.

Chronicle of London : Also this same yere was a gret frost and a strong, lastynge more than xi wokes, for it dured fro seynt Kateryne even unto seynt Scolastyce day the virgyne in Feverer. DL,p.120

This same chronicle records another long and severe winter in 1436–7, no doubt an accidental repetition. This error was copied by Holinshed. J,pp.95–6

Gregory : Ande that same yere there was a grete wyntyr and a colde froste, that duryd fro Syn Kateryns day to Synt Valentynys day nexy sewynge, soo that noo schippe myght passe. . . . CH,p.178

Lambeth Chronicle : This yere was a grete froste, the whiche dured from Seint Katerynes daye to Seint Volantynes daye. And the vintage of wyne came ovir Sheters Hill in cartys from Gravisende. DG,p.61

English Chronicle : And the nexte yeir aftir, the xij yeir of kyng Harri, was the grete frost that nevir eny such was seen before ; and it endurid fro saint Katerynez day into Sheoftide : and the Thamise and othir grete rivers were so hard frosen that hors and cariage myȝte passe ovir. BL,p.55

This frost was experienced in Ireland also. The Annals of Loch Ce : Great frost in this year viz. : seven weeks before Christmas and seven weeks after it. BC,II,p.155

Annals of Ulster : Great frost began at the end of this year (the year of the great frost) namely five weeks before Christmas and lasted to the end of seven weeks after. And numerous herds of cattle and horses and people and packhorses used to go upon the chief lakes of Ireland during that frost and so on. FT,III,p.131

Later in the same annals : The Fir-Manach sent their moveables over Lough Erne westwards. And they had no vessels but the solid ice on the lough. FT,III,p.135

In Scotland there was also rigorous weather as its seems that Boece refers to this winter although he places it in the year before the death of James I.

Boece : In the time of King James the First . . . and sa vehement frost was in the winter afore, that wine and ail was sauld be pound wechtis and meltit agane be the fire . . . (Bellenden's translation, Book XVII, Vol. III, p.512).

All the compilers have this frost in their lists but the dates vary considerably between 1433 and 1436 due to uncertainties in the regnal years given in the London chronicles. Lowe mentions a severe frost in 1432, no doubt referring to this winter, but no original authority seems to have so early a date as 1432. Baker quotes Boece (via Holinshed) under both 1435 and 1436 in identical words ! G,p.16 J,p.96

1434 **Wet autumn.**

Chronicon Preciosum : In 1434 the autumn was so wet, that for almost two years following. . . . (p.103).

The authority cited is Ingulph's continuator. The date intended in this writer is not quite clear but 1436 or 1437 appears more likely. CT,p.398

1438 **Gale** on November 23.

Cleopatra C IV : And in that same yere abowte the ffest of Seint Kateryn vpon a Sonday at aftyr none, ther ffel a grete wynde that dyd a moch harme in many placys : for in london it bere and rent away mekyll of leede on the Gray ffreres in londen. And

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allso it blew almost dovne the ton side of the old Chonge, of the wiche it whas vhdersette, all howsyng with grete long trees, that nether horss ne cart myght passe thorow the strete. AZ,p.145

Luckombe (p. 171) erroneously lists this event as in 1413.

1438–1439 Some compilers have a severe winter here. There is no original account of such an event and the date is probably referable to 1433–4. M,p.7

1439 Weather Diary.

There is in MS. Ashmole 191 a manuscript entitled: *Calendaria duo: seu tabulae motus et locorum planetarum, pro Anno gracie 1438 incompleto, et anno sequente (1439), quorum literae dominicales E. et D.*
This MS. contains meteorological notes for October 9, 1439, and daily for the period October 18, to December 28, 1439. A translation was given to the Ashmolean Society on May 30, 1834. There is a reproduction in Hellmann.

1439 Wet year.

Ingulph's continuator: In the year of our Lord 1439, and the thirteenth of the before-named abbat, the lord John, there was such an excessive quantity of fresh water in the weirs and streams in consequence of the extraordinary rains, that the embankments around the Precinct of Croyland were unable to hold out against the force of the tempestuous torrent . . . and, being driven onward by the force of the North wind, inundated the entire surface of the adjacent common of Whaplode. CT,p.400

Short mentions tempestuous weather with heavy rains in 1438. Of 1439 he says " great tempests, raging winds, rain, great scarcity ". Probably derived ultimately from Ingulph, via Holinshed. R,p.80

1440 Thunderstorm in London on August 12.

Chronicle of London: Also this same yere on a Fryday, that is for to seye the xij day of August, aboughte iij of the belle at afternoon, there fill a sodeyn thondyr clap with a gret reyn and a lyghtnynge, the whiche lyghtnynge entred in at a wynde and distroyd moche hey which was stuffed in a gret hous at the Sterre in Bredstrete; and the remenaunt of the hey was cast out and had in to Chepe, the quantyte of 1 cart full: and so, worschepyd be God, there was not moche more harme do, but palbrakyd sore therein and lost the hey. DL,p.126

1443 Clarke refers to the fact that the river Ouse dried up " a little before the Wars of the Roses ". He cites Camden. The pamphlet *Mirabilis Annus* evidently alludes to the same event and dates it definitely January 1, 1443, quoting Baker. Probably the event alluded to is that described on January 1, 1399 (q.v.). Neither Clarke nor *Mirabilis Annus* is trustworthy as to dates. DW,p.60

1443 Thunderstorms. See in 1444.

1443 Wet autumn.

Chron. Min. Sanct. Benedict de Hulmo: In the autumn a horrible rain flooded many parts of England, in which year the crops were blackened. CY,p.439

1444 Thunderstorm on February 1.

Ingulph's continuator: In the year of our Lord 1444, upon the vigil of the Purification of the Blessed Mary, there was such great and dreadful thunder in the heavens, and such terrific flashes of vivid lightning, that no man living in our age remembers to have ever seen or even heard of the like. During this storm the belfry of St. Paul's at London, the belfry of the monastery of the Cross at Waltham, the church of Baldock, the church of Walden, the church of Kingston-on-Thames, and another church in Kent, were set on fire, and burnt by the lightning, on the same day, though at different hours thereof. CT,p.402

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Fabyan : And this yere, vpon Candelmas evyn, y^e^ steple of seynt Paulys churche in London, was sette on fyre by tempest of lyghtnynge and lastly quenchyd by great dylygence and laboure of many persones : but of all that there laboured, the morowe messe preest of Bowe Churche in Chepe was moste commendyd and notyd. BP,p.617

All the London chronicles mention this notable event but with divergence of opinion as to the date. The years vary from 1443 to 1445.

1445 Lowe refers to a thunderstorm at Bristol in which St. Mary Redcliffe church was damaged. No original reference has been traced. G,p.17

1446 **Thunderstorms** in November and December.
English Chronicle : The xxv. yeer of kyng Harri, yn the monethis of Nouembir and Decembir fille grete thundryng and lightnyng, with huge and grete wyndis. BL,p.62

1447 **Cold weather** in February.
English Chronicle : The 10 Feb. next after . . . and the wedir was so cold that some of the poer people that there wakid, deide for cold. BL,p.62
Richard Fox records on February 17 : And there they brak up their waache . . . and no doubte of hit was a fervent coolde weder and a bytynge.
And he records of February 18 : That forasmoche as the forseyde duke of Gloucetre hadde labered in that feruent coolde wheder, hit was the kynges wylle that he scholdes take the nexte way to his loggyng, and goo to his mete. BL,p.116

These two entries of Fox's refer to Bury St. Edmunds.

1447 Lowe refers to a very hot summer and drought in England but no earlier mention of it has been found. G,p.17

1448 **Floods** in the Thames in March.
Grey Friars Chronicle : And this yere the watter of Temse by excesse of floode the monday in Ester weke came and incresid on the londe unto Populer, and drownyd many howsys and feldes and medowes, and moche of the parich of Stepney and at Raynham and other places in Essex. CK,p.19
Lambeth Chronicle : This yere the xxij day of Marche the water brake in oute of Temmes be syde Lymeoste, and in a noþer place in Temmes, and dide myche harme. DG,p.66

1449 **Solar phenomenon** on October 28.
English Chronicle : The xxviij yeer of king Harri, on Simon day and Jude, and other daieȝ before and aftir, the sonne in his risyng and goyng doune apperid as reed as blood, as meny a man saw ; wherof the peple hadde gret marvaille, and demed that it sholde betokened sum harm sone aftirward. BL,p.63

1450 **Strong winds and rain** on February 25.
Bale : Item, the Wednesday the xxv day of ffeverer was greet wedering of rayne and wynde and atte nyght the king's place at Eltham þe Quene beyng present þer sodenly was on fire (Chronicle : ed. Flenley, 1911).

1450 **Floods** on October 9.
Bale : Item the ix day of Octobre was such a wellyng and spring of waters both of the see water and the ffresh Ryvers and other springs that the lowe contre in divers places wer over flowe. (Chronicle, ed. Flenley, 1911, p. 135.)

BIBLIOGRAPHY.

CHRONOLOGIES

Date	*Author*	*Description*	*Reference Letter*
1749	SHORT, DR. THOMAS	A General Chronological History of The Air, Weather, Seasons, Meteors, etc. (London, 2 vols.) See in the Introduction for a note of this work.	A
1767	SHORT, DR. THOMAS	A Comparative History of the Increase and Decrease of Mankind, etc. (London). The main body of this work is an economic discussion but it contains also much meteorological material including a chronology from 1468 to 1765, a table of wet and dry years from 1400, and rainfall and other data. All largely summarised from his greater work. Very few authorities given, and many dubious dates.	B
1814	DAVIES, G. (?)	Frostiana: or a History of the River Thames in a Frozen State. (London). Anonymous, but probably prepared by the printer, G. Davies. Title page printed on a press set up on the frozen Thames in 1814. Contains chronologies of severe winters with fuller accounts of the later ones. Hardly any authorities cited and probably very hastily put together. Now rather a scarce volume.	C
1844	RIMBAULT, EDWARD F.	Old Ballads illustrating the Great Frost of 1683-4 (Percy Society, London). In addition to the reprint of the 1683-4 Frost Fair Ballads there is an introduction giving details of the best known historic frosts. The early dubious frosts are omitted and the chronology begins in 1092.	D
1848	GUTCH, DR. J. W. G.	A paper in the *Quarterly Journal of Meteorology and Physical Science.* Dr. Gutch was treasurer of the old Meteorological Society before its reorganization into the present body. This is the first chronology of any size since Short's. It is based largely on Luckombe's " Tablet of Memory ", a very popular dictionary of dates in the early XIXth century. Authorities hardly ever mentioned except in the list of meteoric showers. Total number of events mentioned is small.	E
1861	SHEPHERD, GEORGE	The Climate of England. (London.) This amazing work is part of the astrological recrudescence in meteorology in the middle of the XIXth century. It deals with the causes of the variability of the British climate and the disposal of sewage. At the end is a chronology of the characteristics of the four seasons of the year from 1656 to 1860. Where all this detail came from is not mentioned.	F
1870	LOWE, EDWARD J.	Natural Phenomena: and Chronology of the Seasons. (London). This is by far the best known of all the chronologies. Events are listed from the earliest times to 1753. Further volumes contemplated but never appeared. Many authorities given but many omitted especially in the more difficult early years. Apparently Lowe did not know of Short's work at this time.	G
1879	WALFORD, CORNELIUS	Famines of the World: Past and Present. (London.) Reprints of lectures delivered to the Statistical Society of London. Economic in character but appended are several meteorological chronologies. The author endeavours to correlate the economic and meteorological events in a causal sequence but finds the difficulties of harmonising the dates in the early chronicles too great. There is also a bibliography giving the titles of many little known works.	K

Date	*Author*	*Description*	*Reference Letter*
1880	LOWE, EDWARD J.	The Coming Drought : or Cycle of the Seasons. (London.) This pamphlet was written to set forth an alleged 11-year cycle in meteorological phenomena. Contains a chronology in support of the thesis. Authorities given for nearly all the entries although not always with accuracy. Lowe now shews acquaintance with Short and quotes him freely. He even gives Short as an authority up to 1796 although Short died in 1772.	H
1884	BAKER, THOMAS H.	Records of the Seasons, Prices of Agricultural Produce, etc. (London). An extensive chronology of meteorological events with special attention to agricultural prices, mostly derived from Thorold Rogers. Authorities given for nearly all events but much duplication in the early years.	J
1886	WALFORD, EDWARD	Frost Fairs on the Thames. This volume is Opusculum No. XII of Ye Sette of Odd Volumes. Walford was Rhymer to Ye Sette. Contains a chronology of severe winters from 220 onwards with extracts from original writings and reproductions of woodcuts and ballads.	L
1887	ANDREWS, WILLIAM	Famous Frosts and Frost Fairs of Great Britain. (London.) The best chronology devoted to the special subject of severe winters. Great lack of authorities in the early part. Andrews can only quote a single writer for all the frosts before A.D. 1000 and that authority is Short who lived eight centuries later! The later frosts and frost fairs are very fully documented.	M
1887	SYMONS, DR. GEORGE J.	Historic Droughts. The first study of this special branch of chronology. It is compiled almost entirely from the works of Short, Lowe and Cornelius Walford. Apparently Symons took the data from these workers as quite correct with the result that this list of droughts contains much duplication especially in the early years. It is printed in *British Rainfall* for 1887.	N
1895	SYMONS, DR. G. J. and CHATTERTON, S.	The November Floods of 1894 in the Thames Valley. This paper is in Vol. XXI of the *Quarterly Journal of the Royal Meteorological Society*. It contains a chronology of floods in the Thames Valley starting off with the mythical one in A.D. 9.	O
1896	ANGOT, ALFRED	The Aurora Borealis. (London.) Contains a chronology of auroral appearances beginning at 1700.	P
1901	WATSON, ALBERT E.	A Review of Past Severe Winters in England. This paper in Vol. XXVII of the *Quarterly Journal of the Royal Meteorological Society* endeavours to prove that severe winters occur in or near years ending with 0 or 5 in the units place. A Chronology of severe winters is given, taken largely from Short and the earlier writers without any critical study of the errors and uncertainties.	Q
1928	BROOKS, DR. C. E. P. and GLASSPOOLE, DR. J.	British Floods and Droughts. (London.) The first statistical and climatic study of this subject. Does not contain a chronological study in the ordinary sense, but many of the earlier historic rains and droughts are cited.	R

In addition to these works there are a number of papers which deal with special aspects of the subject, and there are the brief chronologies to be found in works dealing more generally with meteorology. The following may be mentioned :

SHAW, SIR NAPIER . There is a very brief chronology in " Manual of Meteorology " Vol. II.
This is notable as being one of the first works, if not the first, where suspicion is cast on the historicity of some of the oft-quoted early severe winters.

GREGORY, SIR RICHARD British Climate in Historic Times. (Aberystwyth, 1924.)
This address contains a summary of outstanding events of British meteorological history, for which authority is nearly always given.

BRUNT, PROF. D. . Weather as a Factor in History. (*London, State Service*, April, 1930.)

BENTLEY, RICHARD . Weather in War Time. (*London, Quart. J. R. met. Soc.*, 33, 1907, p. 81.)

BENTLEY, RICHARD . Meteorology in Daily Life. (*London, Quart. J. R. met. Soc.*, 32, 1906, p, 81.)

MONICA, M. G. . . The Great Frosts of History. (*London, Happy Hours*, January, 1875.)

The two articles by this writer in this periodical (which is now defunct) are mentioned because they constitute the only authority which Rudolf Hennig was able to produce in his " Katalog " for the dubious early severe winters.

There are also the lists contained in publications of the " dictionary of dates " type, such as those of Trusler, Toone, Overall, Gordon, Haydn and others. These frequently contain meteorological events but they are generally baldly stated without authority and are of very little use in tracing the original records of the events. A very popular work of this nature was that of Philip Luckombe of which the tenth edition appeared in 1800. This formed the basis of the chronology of Dr. Gutch and some of Luckombe's errors appear in consequence in Gutch. Lastly there are compilations of local events of the type of M. A. Richardson's extensive survey relating to Northumberland.

Perhaps mention should also be made here to recent foreign publications of this type, some of which mention a good many British events.

HENNIG, RUDOLF . Katalog bemerkenswerter Witterungsereignisse. *Berlin, Abh. preuss. met. Inst.* 2, *No.* 4, 1904.

EASTON, DR. C. . Les hivers dans l'Europe Occidentale. (Leyde, 1928.)

VANDERLINDEN, E. . Chronique des Evenements Météorologiques en Belgique jusque'n 1834. *Bruxelles, Mém. Acad. R. Belg., Cl. Sci. Collection in quarto.* (2 *Sér.*) 5, 1924.

VUJEVIC, F. . . Documents historiques sur les Variations de Climat, etc. (Beograd, 1931).

ANGOT, A. . . Premier Catalogue des Observations Météorologiques. *Paris, Ann. Bur. mét. Fr.* 1895, *Tome I pp. B* 89-146.

CLOUZOT, E. . . Histoire et Météorologie. *Bull. Histol. Philol. Paris*, 1906 *pp* 117-35 and Paris 1907.

HISTORIES, CHRONICLES, AND GENERAL WORKS

Name	*Title*	*Reference*
Abingdon, Chronicle of	*Chronicon Monasterii de Abingdon.* (Latin). 2 vols. Rolls Series, 1858.	
ADAM OF USK	*Chronicon Adae de Usk.* (Latin text and English trans.) Royal Society of Literature, 1904.	AA
ADAMNAN	Life of St. Columba. (English trans.) New University Library, 1905.	
AELRED OF RIEVAULX	*De Sanctis Ecclesiae Haugustaldensis, et eorum Miraculis Libellus.* (Latin). Surtees Soc. 1864.	
Do.	*Vita Sancti Ninian.* (Latin text and English trans.) Historians of Scotland, 1874.	
Do.	*Relatio de Standardo.* (Latin). Rolls Series, 1885.	
AGNELLUS, THOMAS	*Sermo de Morte et Sepultura Henrici Regis Junioris.* (Latin). Rolls Series, 1875.	
ALFRED OF BEVERLEY	*Aluredi Beverlacensis Annales sive Historia Gestis Regum Britanniae.* (Latin). T. Hearne, Oxford, 1716.	AB
AMUNDESHAM, JOHN	*Johannis Amundesham monachi Monasterii S. Albani, ut videtur, Annales.* (Latin). 2 vols. Rolls Series, 1870-1.	
Anglo-Saxon Chronicle	Anglo-Saxon Chronicle according to the several original authorities. (Saxon texts and English trans.) 2 vols. Rolls Series, 1861.	AC
Angliae, Chronicon	*Chronicon Angliae ab Anno Domini* 1328 *usque ad Annum* 1388 *auctore monacho quodam Sancti Albani.* (Latin). Rolls Series, 1874.	AD
Anonimalle Chronicle	Anonimalle Chronicle. (14th. cent. French). V. H. Galbraith, Manchester, 1927.	AE
ARNOLD, RICHARD	The Customs of London, otherwise called Arnold's Chronicle. (English). Dibdin, London, 1811.	AF
ASHMOLE MS. 191	See a note on this Bodleian MS. in the year 1439 of the Chronology.	
ASSER	*Annales rerum gestarum Alfredi Magni auctore Asseris Menevensi.* (Latin). English translation in "Six Old English Chronicles". Bohn, 1908.	AG
BAKER, GEOFFREY LE	See under Geoffrey.	
BALE, ROBERT	Chronicle. (Latin). A London Chronicle of the XVth Century. (See Flenley, R.).	
BARTHOLOMEW DE COTTON	*Bartholomaei de Cotton monachi Norwicensis Historia Anglicana.* (Latin). Rolls Series, 1859.	AH
Battle Abbey, Chronicle of	Chronicle of Battel Abbey. (Latin text and English Trans.) M. A. Lower, London, 1851.	
BEDE	*Historia Ecclesiastica Gentis Anglorum.* (Latin). Many editions. English trans., Bohn, 1907.	AJ
BENEDICT OF PETERBOROUGH	*Gesta Regis Henrici Secundi Benedicti Abbatis.* (Latin). 2 vols. Rolls Series, 1867. (Probably not written by Benedict although attributed to him.)	AK

Name	*Title*	*Reference*
Bermondsey, Annals of	*Annales Monasterii de Bermundeseia.* (Latin). Rolls Series, 1866.	AL
BOECE, HECTOR	The Buik of the Croniclis of Scotland. (16th. century Scots metrical version by William Stewart.) 3 vols., Rolls Series, 1858. There is also a 16th century Scots prose version by John Bellenden. 3 vols., 1822.	AM
Boyle, Annals of	*Annales Buelliani.* (Irish text and Latin trans.) Dr. O'Conor's *Rerum Hibernicarum Scriptores Veteres,* Buckingham, 1825.	AN
Burton, Annals of	*Annales Monasterii de Burton.* (Latin). Rolls Series, 1864.	AO
CAESAR, CAIUS JULIUS	*De Bello Gallico.* (Latin). Many editions. Text and English trans. in Loeb Classical Lib. (H. J. Edwards).	
Cambria, Annals of	*Annales Cambriae.* (Latin). Rolls Series, 1860.	AP
CAMDEN, WILLIAM	*Britannia.* (Latin). Several editions. English trans. with additions by R. Gough, 3 vols. London, 1789.	
Canterbury, Anonymous Chronicle of	*Chronicon Anonymi Cantauriensis.* (Latin). Manchester Univ. Press, 1914.	
CAPGRAVE, JOHN	The Chronicle of England (English, 14th. cent. Norfolk dialect). Rolls Series, 1858.	AQ
Do.	*Liber de Illustribus Henricis.* (Latin). Rolls Series, 1858. English trans., F. C. H. Lane, London, 1858.	AR
CARADOC OF LLANCARVAN	Suggested writer of the early part of the *Brut y Tywysogion.* (q.v.)	AS
CAREW, GEORGE	The Story of King Richard the Second, his last being in Ireland. (English said to be trans. from the French.) In Walter Harris' *Hibernica,* Pt. I., 1770.	
CASE, THOMAS	Annals of Ireland. (Latin). Rolls Series, London, 1886.	AT
Chester, Annals of	*Annales Cestrienses.* (Latin). Lancashire and Cheshire Record Society, 1887.	AV
CHILDREY, JOSHUA	*Britannia Baconica.* London, 1661.	AW
Chronicon Brevius	*Chronicon Brevius* (Latin). Edited with the Eulogium Historiarum. Rolls Series 1858.	AX
CLARKE, SAMUEL	A Mirrour, or Looking Glass, Both for Saints and Sinners. 2 vols., London, 1656, 1671.	AY
CLEOPATRA C IV.	MS. Chronicle in English (15th. Cent). See Kingsford, C. L.	AZ
Clonmacnoise, Annals of	Annals of Clonmacnoise. (English XVIth. century translation of a lost Irish original). Roy. Soc. Antiq. Ireland, 1896.	BA
CLYN, JOHN	*Annalium Hiberniae Chronicon ad annum* MCCCXLIX. (Latin). Irish Arch. Soc., 1849.	BB
Connaught, Annals of	Annals of Connacht. (part only). (Irish with Eng. trans.). Rolls Series 1871. See Annals of Loch Ce.	BC

Name	*Title*	*Reference*
COTTON, JULIUS B II.	MS. Chronicle in English (15th. Cent). See Kingsford, C. L.	AZ
DOWLING, THADDEUS	*Annales Breves Hiberniae.* (Latin). Irish Arch. Soc., 1849.	BE
Dunstable, Annals of	*Annales Prioratus de Dunstaplia* (Latin). Rolls Series, 1866.	BF
EADMER	*Eadmeri Historia Novorum in Anglia.* (Latin). Rolls Series, 1884.	BG
Do.	*Vita S. Anselmi et quaedam miraculi ejus. De vita et conversatione Anselmi.* (Latin). Rolls Series, 1884.	
Do.	*Vita Wilfridi Episcopi.* (Latin). Rolls Series, 1879.	
EASTON, J.	A Chronology of Remarkable Events Relative to the City of New Sarum. Salisbury, 1824.	BH
EDDIUS	*Vita Wilfridi Episcopi auctore Eddio Stephano.* (Latin). Rolls Series, 1879.	
Edward of Carnarvon, Acts of	*Gesta Edwardi de Carnarvan.* (Latin). Rolls Series, 1883.	BJ
Edward II, Life of	*Vita Edwardi Secundi.* (Latin). Rolls Series, 1883.	BK
Edward IV, History of,	Historie of the Arrival of Edward IV in England. (English, 15th. Cent.) Camden Soc., 1838.	
Elmham, Metrical Book of,	*Elmhami Liber Metricus de Henrico Quinto.* (Latin). Rolls Series, 1858.	
Ely, History of the Church of,	*Historia Ecclesiae Eliensis.* (Latin). Gale's Hist. Brit. Script. XV.	
English Chronicle	An English Chronicle. (English, XVth. Cent.) Camden Soc., 1856.	BL
Ethelwerd, Fabius	Chronicle (Latin). English trans. in " Six Old English Chronicles ", Bohn, 1908.	BM
Eulogium Historiarum	*Eulogium Historiarum sive Temporis, a monacho quodam Malmesbiriensi exaratum.* (Latin). 3 vols., Rolls Series, 1858-63.	BN
EUSEBIUS PAMPHILUS	Ecclesiastical History. English translation, Bohn, 1851.	
Do.	*Interpretatio Chronicae Eusebii Pamphili, auctore Hieronymo.* (Latin). Migne's *Patrologiae*, Paris, 1846.	
Evesham, Battle of, etc.	*De Bellis Lewes et Evesham.* (Latin). Camden Soc., 1840. Sometimes attributed to William of Rishanger.	
EVERISDEN, JOHN	One of the continuators of Florence of Worcester (q.v.). (Latin). English trans., Bohn, 1854.	BS
FABYAN, ROBERT	The New Chronicles of England and France. (English). Sir H. Ellis, London, 1811.	BP
FANTOSME, JORDAN	Chronicle of the War between the English and the Scots in 1173 and 1174. (Romance with English trans.). Surtees Soc., 1840.	
FLEETWOOD, WILLIAM	*Chronicon Preciosum.* (English). London, 1707.	BR
FLENLEY, RALPH	Six Town Chronicles of England. Oxford, 1911.	

Name	*Title*	*Reference*
FLORENCE OF WORCESTER	*Florentii Wigorniensis Chronicon.* (Latin). English trans., Bohn, 1854.	BS
FOLCARD	*Vita S. Johannis Episcopi Eboracensis.* (Latin). Rolls Series, 1879.	
FORDUN, JOHN	*Chronica Gentis Scotorum.* (Latin with English trans.) Historians of Scotland, 1871.	BT
FOUR MASTERS	*Annales Quatuor Magistrorum.* (Irish with Latin trans.). In Dr. O'Conor's *Rerum Hibernicarum Scriptores Veteres.* Buckingham, 1826. This edition goes up to A.D. 1171 only.	BV
Do.	The Annals of Ireland. English translation by Connellan. Dublin, 1846. This covers the period 1171 to 1616. The Four Master were Michael O'Clery, Peregrine O'Clery, Conary O'Clery and Peregrine O'Duigenan.	BW
FOX, RICHARD	Some contemporary historical notes by this writer are to be found at the end of " English Chronicle " (q.v.).	BL
FRECULPHUS	*Freculphi Episcopi Lexoviensis Chronicorum Tomi II.* Coloniae, 1539. (Latin).	
FRIDEGODUS	*Vita Sancti Wilfridi.* (Latin). Rolls Series, 1879.	
GAIMAR, GEOFFREY	*Lestorie des Engles solum Maistre Geffrei Gaimar.* (Norman French text and English trans.) 2 vols., Rolls Series 1888-9. English trans., Church Historians of England, 1854.	BY
GEOFFREY LE BAKER	*Chronicon et Chroniculum.* (Latin). E. M. Thompson, Oxford, 1889.	
GEOFFREY OF COLDINGHAM	*Galfridi de Coldingham de Statu Ecclesiae Dunhelmensis.* (Latin). Surtees Soc., 1839.	
GEOFFREY OF MONMOUTH	*Galfridi Monumentensis Historia Britonum.* (Latin). English Hist. Soc. English trans. in " Six Old English Chronicles ", Bohn, 1908.	BZ
GERALD OF BARRY	*Giraldi Cambrensis Opera.* (Latin). 8 vols., Rolls Series, 1861-91.	
Do.	*Itinerarium Kambriae et Descriptio Kambriae.* English trans., Everyman Series, 1908.	CA
Do.	*De Principis Instructione Liber.* English trans., Church Historians of England, 1858.	CB
Do.	*Topographica Hibernica et Expugnatio Hibernica.* English trans., Bohn, 1905.	CC
GERVASE OF CANTERBURY	*Opera Historica.* (Latin). 2 vols., Rolls Series, 1879-80.	CD
GILDAS SAPIENS	*De Excidio Britanniae.* (Latin). English trans. in " Six Old English Chronicles ", Bohn, 1908.	CE
GILLACHRIST UA-MAEILEOIN	Suggested writer of the earlier part of the *Chronicon Scotorum.* (q.v.)	
GRACE, JAMES	*Annales Hiberniae.* (Latin). Irish Arch. Soc., 1842.	CF
GRAFTON, RICHARD	A Continuation of the Chronicle of England. (English). Sir H. Ellis, London, 1812.	CG
GRAY, SIR THOMAS	*Scalacronica.* (Latin). Edited for the Maitland Club. English trans. Sir H. Maxwell, Glasgow, 1907.	CJ

Name	*Title*	*Reference*
GREGORY, WILLIAM	Chronicle of London. (English). Camden Soc., 1876.	CH
GREY FRIARS OF LONDON	Chronicle of the Grey Friars of London. (English). Camden Soc., 1852.	CK
HAKLUYT, RICHARD	The Principal Navigations, Voyages, Traffiques, and Discoveries of the English Nation. 8 vols., J. M. Dent, London, 1927.	CL
HARDYNG, JOHN	Chronicle of John Hardyng. (English verse, XVth. cent.) Sir H. Ellis, London, 1812.	CM
Harold, Life of,	*Vita Haraldi.* (Latin). Birch, London, 1885.	
Henry IV, Annals of	*Annales Henrici Quarti.* (Latin). Rolls Series, 1866.	CN
HENRY OF BLANEFORD	*Chronica Henrici de Blaneford.* (Latin). Rolls Series, 1865.	
HENRY OF HUNTINGDON	*Henrici Archidiaconi Huntendunensis Historia Anglorum.* (Latin). Rolls Series, 1879. English trans., Bohn, 1853	CO
Hereward, Acts of	*Gesta Herewardi.* (Latin). Rolls Series, 1888.	
HERMAN THE ARCHDEACON	*Hermanni Archidiaconi de Miraculis Sancti Eadmundi.* (Latin). Rolls Series, 1890.	
HOLINSHED, RALPH	The Chronicles of England, etc. (English). 3 vols. London, 1577.	
Holyrood, Chronicle of	*Munimenta Ecclesiae Sancte Crucis de Edwinesburg.* (Latin). Bannatyne Club, 1840. English trans., Church Historians of England, 1856.	CP
HORN, ANDREW	Possibly the author of the *Annales Londinienses.* (q.v.)	
HOWES, EDMUND	See Stow, John.	
HOWIE, JOHN	An Alarm to a Secure Generation. . . . Kilmarnock, 1809.	CQ
Hyde, Book of,	*Liber Monasterii de Hyda.* (Latin). Rolls Series, 1866.	CR
Icelandic Annals	Icelandic Sagas and other Historical Documents. (Norse text and English trans.) 4 vols. Rolls Series, 1887-94.	CS
INGULPH	Chronicles of the Abbey of Croyland, with continuations. (Latin). English trans., Bohn, 1908. (A good deal of the early part of this history is probably spurious.)	CT
Inisfall, Annals of	*Annales Inisfalenses.* (Irish with Latin trans., two codices.) Dr. O'Conor's *Rerum Hibernicarum Scriptores Veteres.* Buckingham, 1825.	CV
JOCELYN OF BRAKELOND	*Chronica Jocelini de Brakelonda de rebus gestis Samsonis Abbatis S. Edmundi* (Latin). Camden Soc., 1840.	
JOCELYN OF FURNESS	Life of St. Kentigern. (Latin with Eng. trans.). Historians of Scotland, 1874.	
JOHN OF HEXHAM	*Chronica Johannis Hagustaldensis.* (Latin). Surtees Soc., 1864.	CW
JOHN OF LONDON	*Commendatio Lamentabilis.* (Latin). Rolls Series, 1883.	
JOHN OF MALVERN	Continuation of Higden's Polychronicon. (Latin). Rolls Series, 1886.	CX
JOHN OF OXNEAD	*Johannis de Oxenedes Chronica.* (Latin). Rolls Series, 1859.	CY

Name	*Title*	*Reference*
JOHN OF READING	*Chronica Johannis de Reading* (Latin). Manchester Univ. Press, 1914.	CZ
JOHN DE TAXTER	Continuation of Florence of Worcester's Chronicle. English trans., Bohn, 1854.	BS
JOHN DE TROKELOWE	*Chronica et Annales Johannis de Trokelowe.* (Latin). Rolls Series, 1865.	
JOHN OF WALLINGFORD	Chronicle. (Latin). English trans., Church Historians of England, 1854.	DB
JOHN OF WORCESTER	A continuator of Florence of Worcester.	BS
KEATING, GEOFFREY	*Foras Feasa* (History of Ireland). (Irish with English trans.) 4 vols. Irish Texts Soc., 1902, etc.	
KINGSFORD, C. L.	Chronicles of London. Oxford, 1905. Contains editions of most of the chronicles relating to London.	AZ
KNIGHTON, HENRY	*Chronicon Henrici Knighton (vel Cnitthon) Monachi Leycestrensis.* (Latin). 2 vols. Rolls Series, 1889-95.	DE
KNIGHTS, M.	Norwich floods of 18th November, 1878. Norwich, 1879 (?).	DF
Lambeth Chronicle	Lambeth MS. 306. (English, XVth. cent.) Camden Soc. 1880.	DG
Lanercost, Chronicle of	*Chronicon de Lanercost.* (Latin). 2 vols., Bannatyne Club, 1839.	DH
Loch Ce, Annals of	Annals of Loch Ce. (Irish with English trans.). 2 vols. Rolls Series, 1871. Contains a part of the Annals of Connacht.	BC
London, Annals of	*Annales Londinienses.* (Latin). Rolls Series, 1882.	DK
London, Chronicle of	Chronicle of London. (English, XVth. cent.) Nicolas, London, 1827.	DL
London, Chronicles of	Croniques de London. (Norman French). Camden Soc., 1844.	DM
London, Tablet Chronicle of	Tablet which hung in old St. Paul's Cathedral near the Duke of Lancaster's Tomb. Printed in " Chronicle of London ".	DL
LUCKOMBE, PHILIP	The Tablet of Memory. Tenth edition, London, 1800.	
LYCOSTHENES, CONRAD	*Prodigiorum ac Ostentorum Chronicon.* (Latin). Basiliae, 1557.	DN
Man, Chronicle of	Chronicle of Man and the Sudreys. (Latin with Eng. trans.) Manx Soc. 1874.	DO
Margan, Annals of	*Annales de Margan.* (Latin). Rolls Series, 1864.	DP
MATTHEW OF WESTMINSTER	*Flores Historiarum Matthaei Westmonasteriensis.* (Latin). Francofurti, 1601. Latin text with continuators in Rolls Series, 3 vols., 1890. English trans. Bohn, 1856. There is some doubt as to the actual existence and authorship of Matthew.	DQ
MAYDESTONE, CLEMENT	Some historical notes by Maydestone are printed at the end of " English Chronicle ". (q.v.)	BL
Meaux, Chronicle of	*Chronica Monasterii de Melsa.* (Latin). 3 vols. Rolls Series, 1866-8.	DS

Name	*Title*	*Reference*
Melrose, Chronicle of	Chronicle of Melrose. English trans., Church Historians of England, 1856.	DT
MERLE, WILLIAM	*Consideraciones Temperiei pro 7 Annis.* (Latin with English trans.) London, 1891.	DV
Mirabilis Annus	An anonymous pamphlet. (English) London, 1661. Two continuations appeared in 1662.	DW
MOORE, SIR THOMAS DE LA	*Vita et Mors Edwardi Secundi.* (Latin). Rolls Series, 1883.	
MURIMUTH, ADAM	*Adae Murimuth continuatio Chronicarum.* (Latin). Rolls Series, 1889.	DX
NENNIUS	*Nennii Historia Britonum.* (Latin). Eng. Hist. Soc. English trans. in " Six Old English Chronicles ", Bohn, 1908.	
NIGER, RALPH	*Chronicon Succinctum a Christo incarnato usque ad annum* 1213. *Chronicon a condito mundo* (Latin). Caxton Soc., 1851.	
O'BRAIEN, TIGHERNAC	See Tighernac.	
Orkneyers, Saga of the	*Orkneyinga Saga.* (Norse with English trans.) Rolls Series, 1887, 1894.	DY
OROSIUS, PAULUS	*Pauli Orosii Historia contra Paganos.* (Anglo-Saxon trans. by Alfred the Great).	
Oseney, Annals of	*Annales Monasterii de Oseneia.* (Latin). Rolls Series, 1869.	DZ
PARIS, MATTHEW	*Matthaei Parisiensis monachi Sancti Albani Chronica Majora.* (Latin). 7 vols. Rolls Series, 1872-84.	EA
Do.	*Matthaei Parisiensis Historia Anglorum sive ut vulgo dicitur Historia Minor.* (Latin). 3 vols. Rolls Series, 1866-9.	
Pauline Annals	*Annales Paulini.* (Latin). Rolls Series, 1882.	EB
PEMBRIDGE, CHRISTOPHER	Annals of Ireland. (? Latin). An English version is printed in Camden's *Britannia* (in Vol. 3 of Gough's 1789 edition).	
PETER OF BLOIS	One of the continuators of Ingulph.	CT
Peterborough, Chronicle of	*Chronicon Petroburgense.* (Latin). Camden Soc., 1849.	EC
Picts and Scots, Chronicles of	A collection of records of the history of Scotland up to the XVth. century. (Irish, Latin and Scots.) Rolls Series, 1867.	ED
Pluscarden, Book of	*Liber Pluscardensis.* (Latin with English trans.) Historians of Scotland, 1880.	EE
Preciosum, Chronicon	See Fleetwood, William.	BR
Prosper of Aquitaine	*Prosper Tironis Epitome Chronicon.* (Latin). *Monumenta Germ. Hist.*, 1892.	
RALPH OF COGGESHALL	*Radulphi de Coggeshall Chronicon Anglicanum.* (Latin). Rolls Series, 1875.	EG
RALPH OF DISS	*Radulphi de Diceto Decani Londiniensis Opera Historica.* *Abbrevationes Chronicorum.* *Ymagines Historiarum.* (Latin). 2 vols., Rolls Series, 1876.	 EH EJ
Ramsey, History of	*Historia Ramesiensis.* (Latin). In Gale's Hist. Brit. Script. XV.	

Name	*Title*	*Reference*
RASTELL, JOHN	The Pastime of People. (English). Dibdin, London, 1811.	EK
REDMAYNE, ROBERT	*Vita Henrici Quinti.* (Latin). Rolls Series, 1858.	
REGAN, MAURICE	History of Ireland. (? Irish). English trans. in Harris' *Hibernica,* Pt. I.	
RICHARD OF CIRENCESTER	*De Situ Britanniae.* (Latin). English trans., in " Six Old English Chronicles ", Bohn, 1908. This chronicle is a forgery of the XVIIIth. century.	
Do.	*Ricardi de Cirencestria Speculum Historiale de Gestis Regum Angliae.* (Latin). 2 vols., Rolls Series., 1863-9.	EL
RICHARD OF DEVIZES	*Chronicon Ricardi Divisiensis.* (Latin). Rolls Series, 1886. English trans., Church Historians of England, 1858.	
RICHARD OF HEXHAM	*Historia Ecclesiae Hagustaldensis.* (Latin). Surtees Soc., 1864.	
Richard II, Annals of	*Annales Ricardi Secundi.* (Latin). Rolls Series, 1866.	EM
RICHARDSON, M. A.	The Local Historian's Table Book of Remarkable Occurrences, etc. 8 vols., Newcastle-on-Tyne, 1841–6.	
ROBERT DE AVESBURY	*Roberti de Avesbury de Gestis Mirabilibus Regis Edwardi Tertii.* (Latin). Rolls Series, 1889.	EN
ROBERT OF GLOUCESTER	Metrical Chronicle. (Latin). Rolls Series, 1887.	
ROBERT DE GRAYSTANES	*Roberti de Graystanes Historia de Statu Ecclesiae Dunelmensis.* (Latin). Surtees Soc., 1839.	EO
ROBERT DE MONTE	*Chronicon Roberti Torigni Abbati Monasterii S. Michaelis in Periculo Maris.* (Latin). Rolls Series, 1890. English trans., Church Historians of England, 1856.	EP
Do.	History of King Henry the First. English trans., Church Historians of England, 1858. Usually regarded as part of the " History " of William of Jumièges.	EQ
ROBERT OF READING	A continuator of Matthew of Westminster. (Latin). Rolls Series, 1890.	ER
ROBERT OF TORIGNI	That is, Robert de Monte. (q.v.)	
ROGER OF HOWDEN	*Rogeri de Houedene Chronica.* (Latin). Rolls Series, 4 vols., 1868-71. English trans., 2 vols., Bohn, 1853.	ES
ROGER OF WENDOVER	*Rogeri de Wendover Chronica, liber qui dicitur Flores Historiarum.* (Latin). 3 vols., Rolls Series, 1886-9. English trans., 2 vols., Bohn, 1849	ET
Ross, Annals of	Annals of Ross. (Latin). Irish Arch. Soc. 1849.	EV
ROWLES, WALTER	Kentish Chronologer and Index. London, 1807.	EW
St. Albans, A Chronicle of	*Chronicon Rerum Gestarum in Monasterio Sancti Albani.* (Latin). Rolls Series, 1870.	EX
St. Benedict de Hulmo, Chronicle of	*Sancti Benedicti de Hulmo Chronica Minora.* (Latin). Rolls Series, 1859.	EY

Name	*Title*	*Reference*
St. Edmund's, Annals of	*Annales Sancti Edmundi.* (Latin). Rolls Series, 1892.	EZ
St. Evroult, Chronicle of	Chronicle of St. Evroult. (Latin). English trans., Bohn, 1856.	FA
St. Neots, Annals of	*Chronicon fani Sancti Neoti sive Annales.* (Latin). In Gale's Hist. Brit. Script. These annals are sometimes attributed to Asser.	FB
Scalacronica	See Gray, Sir Thomas.	CJ
Scotorum, Chronicon	*Chronicon Scotorum.* (Irish with English trans.) Rolls Series, 1866.	FC
SELLER, JOHN	The History of England. London, 1696.	FD
SEYER, REV. S.	The History of Bristol. 2 vols. London, 1821-3.	FE
SIMEON OF DURHAM	*Symeoni Dunelmensis Opera Historica.* *Historia Ecclesiae Dunelmensis.* *Historia Regum.* (Latin). 2 vols. Rolls Series, 1882-5.	FF
	English trans., Church Historians of England, 1855.	FG
Stephen, Acts of King	*Gesta Stephani Regis Anglorum.* (Latin). Rolls Series, 1886. English trans., Bohn, 1853.	FH
STOW, JOHN	The Annales or Generall Chronicle of England (with Howes' additions). London, 1615.	FJ
Do.	Historical Memoranda (Lambeth MS. 306). Camden Soc. 1880.	DG
Do.	A Summarie of the Chronicles of England. London, 1604.	FK
Do.	The Survey of London. London, Everyman's Series.	FL
STURLASON, SNORRE	Heimskringla. (Icelandic). English trans. Monsen, London, 1931.	
TACITUS, M. CORNELIUS	*Vita Agricolae.* (Latin). Many editions. Text and English trans. in Loeb's Classical Library.	
Tewkesbury, Annals of	*Annales Monasterii de Theokesberia.* (Latin). Rolls Series, 1864.	FM
THOMAS OF ELMHAM	*Historia Monasterii Sancti Augustini Cantauriensis.* (Latin). Rolls Series, 1858.	FN
THOMAS OF MALMESBURY	Suggested author of the *Eulogium Historiarum.*	
THOMSON, DAVID PURDIE	Introduction to Meteorology. Edinburgh, 1849.	FO
THORN, WILLIAM	*Chronica Gulielmi Thorni.* (Latin). In *Hist. Angl. Script. Decem.* English trans., Oxford, 1934.	
THORDSSON, STURLA	The Saga of Hacon. (Norse with English trans.) Rolls Series 1894.	FP
TIGHERNAC O'BRAIEN	Annals. (Irish with English trans.). In Dr. O'Conor's *Rerum Hibernicarum Scriptores Veteres.* Buckingham, 1825.	FQ
TRIVET, NICHOLAS	*Nicholae Triveti Annales Sex Regum Angliae.* (Latin). Eng. Hist. Soc., 1845.	FR
TYWYSOGION, BRUT Y	Chronicle of the Princes of Wales. (Welsh with English trans.). Rolls Series, 1860.	AS
TYSSILIO	Reputed by some to be the original British writer of the legendary part of Geoffrey of Monmouth's *Historia Britonum.*	
Ulster, Annals of	*Annales Ultonienses.* (to A.D. 1131 only). (Irish with Latin trans.). In Dr. O'Conor's *Rerum Hibernicarum Scriptores Veteres.* Buckingham, 1826.	FS
	Annals of Ulster. (to 1541). (Irish with English trans.) 4 vols. Rolls Series, 1888, etc.	FT

Name	*Title*	*Reference*
VERGIL, POLYDORE	English History. A XVIth. century English trans. Camden Soc., v.d.	FV
VITALIS, ORDERICUS	Ecclesiastical History of England and Normandy. English trans., Bohn, 1856.	FW
VITELLIUS A XVI	MS. London Chronicle. (English, XVIth. cent.) See Kingsford, C. L.	AZ
WALSINGHAM, THOMAS	*Historia Anglicana.* (Latin). Rolls Series, 2 vols., 1863-4.	FY
Do.	*Ypodigma Nuestriae Historia.* (Latin). Rolls Series, 1876.	
Do.	*Gesta Abbatum Monasterii S. Albani.* (Latin). Rolls Series, 3 vols. 1867-9.	
WALTER OF COVENTRY	*Memoriale Fratris Walteri de Coventria.* (Latin). 2 vols. Rolls Series, 1872-3.	GN
WALTER DE HEMINGBURGH	*Chronicon de Gestis Regum Angliae.* (Latin). Eng. Hist. Soc., 1848.	FZ
WARKWORTH, JOHN	Chronicle of the first Thirteen Years of the Reign of King Edward the Fourth. (English). Camden Soc., 1839.	GA
Waverley, Annals of	*Annales Monasterii de Waverleia.* (Latin). Rolls Series, 1865.	GB
WHETHAMSTEDE, JOHN	*Registra quorundam Abbatum Monasterii S. Albani qui saeculo XVmo. floruere.* (Latin). Rolls Series, 2 vols., 1872-3.	GC
WILLIAM DE CHAMBRE	*Willielmi de Chambre Continuatio Historiae Dunelmensis.* (Latin). Surtees Soc., 1839.	
WILLIAM OF MALMESBURY	*Willelmi Malmesbiriensis Monachi de Gestis Regum Anglorum, libri V, et Historiae Novellae, libri III.* (Latin). 2 vols. Rolls Series, 1887-9. English trans., Bohn, 1847.	GD
Do.	*De Antiquitate Glastoniensis Ecclesiae. Liber quinque de Pontificibus.* (Latin). In Gale's Hist. Brit. Script. XV.	
WILLIAM OF NEWBURGH	*Willielmi Neubriggiensis Historia Rerum Anglicarum.* (Latin). Rolls Series, 1884-5. English trans., Church Historians of England, 1856.	GE GF
WILLIAM OF RISHANGER	*Willelmi Rishanger Chronica et Annales regnantibus Henrico Tertio et Edwardo Primo.* (Latin). Rolls Series, 1865.	GG
Winchester, Annals of	*Annales Monasterii de Wintonia.* (Latin). Rolls Series, 1865.	GH
Winchester, Chronicle of	A short Chronicle of Winchester (MS. Nero C. vii). (Latin). English trans., Church Historians of England, 1856.	GJ
Worcester, Annals of	*Annales Prioratus de Wigornia.* (Latin). Rolls Series, 1869.	GK
WYKES, THOMAS	*Chronicon vulgo dictum Chronicon Thomae Wykes.* (Latin). Rolls Series, 1869.	GL
WYNTOUN, ANDREW	*De Orygynale Chronykill of Scotland be Androw of Wyntown.* (Scots). 2 vols. Macpherson, London, 1795. Also text and translation in Historians of Scotland.	GM

In addition to the works in this bibliography a number of other sources such as episcopal registers, monastic cartularies, etc. were examined but as they provided no material for the chronology they have not been included in this list.

AN INDEX OF THE MORE NOTEWORTHY METEOROLOGICAL EVENTS.

Severe Winters.	Heavy Snows.	Marine Floods.	Years with notable wet periods.	Years with notable dry periods.	Hot Summers.
763–4	847	1014	800	681	664
821–2	854	1099	857		
855–6	c. 895		899	737	955
c. 859–60	959	1144	912	741	975
917		1151	920		
941	1031	1170	942	934	1009
1008	1047	1176	975		1084
1026	1095	1178		1078	1095
1039	1098		1037	1084	
1047		1214	1050	1095	1129
1069	1105	1248	1086		1136
1076	1107	1250	1090	? 1110	
1092–3	1167	1251	1092	1114	1222
	1178	1253	1093	1129	1242
1110–1	1193	1271	1098	1136	1252
1114–5		1275		? 1158	1263
1141	1206	1279	1105	1177	1272
1143	1222	1282	1107	? 1191	1284
1149–50	1225	1287	1116		1288
1156	1249	1288	1117	1213	
? 1176	1280	1292	1125	1222	1305
1180	1281–2		1141	1224	1375
	1294	1307	1151	1231	1385
1205		1334	1152	1236	1387
1229	1318	1393	1156	1240	1390
1233–4	1335		1158	1241	
1241	1384	1400	1164 ? 1335	1242	1419
1251	1392	1404 .	1171	1244	
1254			? 1174	1252	
1261	1407–8		1181	1253	
1269–70	1419		1189	1255	
1281–2			1193	1259	
1288–9			1195	1260	
1291			1199	1263	
				1272	
1301			1201	1276	
1305–6			1209	1277	
1309–10			1210	1284 or 5	
1334			1212	1288	
1338–9			1216	1291	
1353–4			1219		
1363–4			1220	1305	
1377			1223	1324	
1381			1227–8	1325–6	
			1233	1331	
1407–8			1236	1333	
1429			1237	1352	
1431			1238	1356	
1433–4			1239	1384	
1447			1240	1385	
			1242	1388	
			1246	1399	
			1247		
				1426	

Some years are mentioned in the records as having both marked wet and dry spells. Such years are included in both the relevant lists in this index.

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